DOCUMENT RESUME

ED 083 956 HE 004 851

AUTHOR Bates, F. Kathleen
TITLE The Relevancy of Offerings as Evaluated by Arizona Home Economics Graduates.
PUB DATE Jul 73
NOTE 127p.; Ph.D. dissertation submitted to Arizona State Univ., Home Economics Education, Tempe

EDRS PRICE MF-$0.65 HC-$6.58
DESCRIPTORS *College Graduates; Course Evaluation; Doctoral Theses; *Educational Needs; *Higher Education; *Home Economics; *Relevance (Education); Research Projects
IDENTIFIERS *Arizona

ABSTRACT

This study evaluated through a mail questionnaire the relevancy of the home economics and related courses as perceived by a stratified proportionate random sampling of 297 home economics graduates of 1968 through 1972 from three Arizona universities. The home economics graduates appeared to find most of their courses relevant to the development of professional and personal competencies. It was concluded, however, home economics curriculums need further in-depth experiences in university laboratories or community environments, individualized programs for specialized majors, inclusion of independent study, and differing methods of presentations. An extensive bibliography is included. (Author/MJM)

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ABSTRACT

THE RELEVANCY OF OFFERINGS AS EVALUATED BY ARIZONA HOME ECONOMICS GRADUATES

By

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A Dissertation Submitted in Partial Fulfillment of
The Requirements for the Degree of
Doctor of Philosophy

Walden University

July 1973

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ABSTRACT

The purpose of this study was to evaluate through a mail questionnaire the relevancy of the home economics and related courses as perceived by a stratified proportionate random sampling of 297 home economics graduates of 1968 through 1972 from the three Arizona universities.

Thirty percent of the graduates had attended a community college, and only 77 out of the 297 had earned a graduate degree, 89.6% of those in Arizona. Forty-one percent of the respondents were Home Economics Education majors and 55.8% held full-time teaching positions. Out of the total sample only 11.6% were employed full-time outside of home economics. Family responsibilities were cited by the graduates for not seeking employment. Analysis of the collected data revealed over 80% of the respondents were in the 20 to 30 age range, 67.3% were married and 39.4% had children.

The home economics graduates appeared to find most of their courses relevant to the development of professional and personal competencies.

The first and second null hypotheses "not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed professionally and personally," were rejected at the five percent level of significance. The third null hypothesis that there are no significant differences among graduates of various professional majors with respect to rating

of courses as "beneficial" or "adequate" for the development of competencies needed in their professional employment was accepted for 16 courses and rejected at the five percent level of significance for 34 courses.

In conclusion, home economics curriculums need further in-depth experiences in university laboratories or community environments, individualized programs for specialized majors, inclusion of independent study and differing methods of presentations.

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ACKNOWLEDGEMENTS

Gratitude is expressed to Dr. Rodney J. Reed for his helpfulness in formulating the problem initially and suggesting procedures for implementation.

Appreciation is expressed to Dr. Margaret V. Barkley for her guidance and inspiration to me during the development and writing of this dissertation, and for her continued warm friendship.

Other faculty are to be commended as an integral part of the innovative program offered by Walden University.

My grateful appreciation is extended my parents, Mr. and Mrs. Manley Bates, for their faith and encouragement throughout the writing of this dissertation.

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CHAPTER 1

INTRODUCTION

Today administrators of higher education are realizing that research and publication of learned papers cannot be the major functions of the university, but rather the major concern of the institution should be the students they serve. President Charles De Carlo of Sarah Lawrence observes that "whole packaging of education with its unitizing of knowledge had all but destroyed any meaningful relationship between the teacher and the student (Bigelow, 1971, p. xxv)." Arrowsmith (1971) reinforces this idea when he states that the classroom teacher must perform an effective teaching role which is more important than research scholarship. Dressel (1968) indicates that students demand an education that is relevant to their current concerns and pragmatic to their future ambitions. The rapidly accelerated pace of our social and technological society exerts pressure for continual reappraisal of the educational program to prevent the encroachment of obsolescence, states Dressel and DeLisle (1969).

Home economics has long been concerned with curriculum changes which are designed to meet the needs of students in higher education. Spafford (1949) notes that in most institutions of higher learning, the purpose of home economics is to educate for personal development, for family living and for specialization in a profession. She perceives that home economics functions as a field of service that envelopes a

number of professions; it is concerned with the analysis of and assistance to families.

In 1959 the Home Economics Division of the National Association of State Universities and Land-Grant Colleges requested a study of the "problems, objectives and future of home economics." Under the auspices of the Carnegie Corporation the study was conducted by the Institute of Higher Education of Teachers College, Columbia University. As an outgrowth of this research, McGrath and Johnson (1968) charge that home economics must be prepared to demonstrate its competencies for new responsibilities and demands. The profession must prepare home economists to cope with turbulent changes affecting American life.

One of the problems McGrath (1968) cites is that home economics is a complex field which draws upon a multitude of disciplines, and it requires a strategy for the inclusion of a relevant body of knowledge selected in relation to the needs of the individual for his or her personal and professional life. New social developments involving national efforts have given rise to new potential for the expansion of existing careers and the creation of new occupations for which the major preparation is home economics. With the wider selection of job opportunities, McGrath remarks, home economics must keep pace with the complex trend of preparation for a variety of employment.

Henderson (1965) views the home economics profession as having a commonness of purpose to improve the quality of family life which has a deep significance to all mankind. Henderson reports:

> Every professional person operating within home economics, should understand the broad and deep

> significance to all mankind of several facets of daily living (food, housing, human relationships, management): their political, economic, social, and psychological significance and their significance for the health and welfare of all individuals and hence of the total society (p. 762).

Home economics is faced, however, with having to produce competencies necessary for the many professional positions home economists occupy.

Hurt and Alexander (1969) concur with McGrath and Johnson (1968) and Henderson (1965) by stating that as new knowledge and skills are discovered, home economists must find ways to put this knowledge and skills to work in helping members of families and occupational workers to attain richer, more satisfying lives. In order to do this Hurt directs attention to the need for adjusting the home economics curriculum.

The adequate educational preparation of home economists is crucial to the maintenance of the home economics profession. Jefferson (1967) expresses the view that colleges and universities should inquire into their own programs to assure competencies and to establish the relevancy of the academic and professional preparation to the functions the graduates will serve.

If colleges and universities are to provide excellence in higher education, then Nelson (1964) suggests, a periodic follow-up procedure to measure the effectiveness of the final product for the evaluation and improvement of curriculums is a wise endeavor. He believes the main weakness or limitation in data secured from these methods is that the success or failure of the graduates cannot be

totally ascribed to a specific institution. However, Nelson points out, often the graduates are the most significant determinants of the adequacy of the program. Spafford (1949), Wood (1963) and Henderson (1965) concur with Nelson and recommend seeking the opinions of the alumni before curriculum changes are made.

This investigator concluded therefore, that in order to determine how relevant the current home economics curriculums are among the three universities of higher education in Arizona that opinions must be solicited from graduates.

STATEMENT OF THE PROBLEM

The problem investigated was to ascertain the relevancy of the current home economics curriculums from the three state-supported Arizona higher education institutions for meeting the contemporary needs of graduates of 1968 through 1972. This study endeavored to recognize how graduates evaluate their university preparation for the competencies needed in their present personal and professional lives so that recommendations could then be made for realistic curriculum revisions.

HYPOTHESES

The three null hypotheses tested were as follows:

1. Not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed professionally.

2. Not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed personally.

3. There are no significant differences among graduates of various professional majors with respect to rating of courses as "beneficial" or "adequate" for the development of competencies needed in their professional employment.

ASSUMPTIONS

The following assumptions inherent in this investigation were:

1. Graduates from the past five years would be able to more accurately evaluate their course offerings than would graduates from the previous years.

2. Opinions of graduates are valid as to the relevancy of the home economics curriculums for fulfilling essential competencies for professional and personal needs.

3. Graduates are willing to offer their opinion on courses which contributed most or were least beneficial to their professional and personal competencies.

DELIMITATIONS

This study was delimited to the home economics graduates within a five year period from the three Arizona Universities: Arizona State University, Tempe; University of Arizona, Tucson; and Northern Arizona University, Flagstaff.

The population was further delimited to graduates of 1968, 1969, 1970, 1971, and 1972 with a bachelor's or master's degree who were registered with the alumni office of their respective Arizona universities. The registration of graduates was not complete in some instances because of the lack of records on some graduates in the alumni offices. Graduates with a residence listed outside the continental United States were eliminated from the sample.

The method of data collection was by a self-administered mail questionnaire sent to a stratified proportionate random sample of home economics graduates from the three Arizona Universities during the fall of 1972.

OPERATIONAL DEFINITIONS

For the purposes of this study, the following definitions of specific terms and their particular use were obtained from Good's Dictionary of Education (1959):

Competence: "ability to apply to practical situations the essential principles and techniques of a particular subject-matter field (p. 115)."

Curriculum: "a systematic group of courses or sequences of subjects required for graduation or certification in a major field of study (p. 149)."

Curriculum, professional: "a program or sequency of courses designed to prepare for the practice of a profession (p. 150)."

Home economics:

> a discipline that draws from the biological, physical, and social sciences and the humanities the content needed to help people solve problems of food, clothing, shelter, and relationships, and that deals with the development of understandings, skills, and attitudes essential to the improvement of the ways of living of individuals, families, and community groups (p. 271).

Home economist: "one who holds a bachelor of science or bachelor of arts degree or an advanced degree with a major in one of the fields of home economics (p. 271)."

Homemakers: "married or single men or women who carry major responsibilities for the establishment and maintenance of a home (p. 271)."

Profession: "an occupation usually involving relatively long and specialized preparation on the level of higher education and governed by its own code of ethics (p. 415)."

Relevance:

> pertinence to a situation, relation, issue of concern which for any reason is in the focus of attention; significantly related to the problem at hand, or to the problem with which people are struggling in a given period (p. 458).

Vocation: "a calling, as to a particular occupation, business, or profession (p. 602)."

The other operational definitions for this study were obtained from Webster's Third New International Dictionary (1968):

Beneficial: "conferring benefits: contributing to a good end (p. 203)."

Adequate: "fully sufficient for a specified or implied requirement (p. 25)."

Deficient: "lacking in some quality, faculty, or characteristic necessary for completeness: not up to normal standard (p. 592)."

ORGANIZATION OF THE STUDY

The remainder of this study was organized and reported as follows:

Chapter 2 reviews the literature related to the study.

Chapter 3 identifies the methods and statistical research design.

Chapter 4 reports the data collected and the findings.

Chapter 5 presents the summary, conclusions and the recommendations based upon the data collected.

CHAPTER 2

REVIEW OF RELATED LITERATURE

To evaluate the adequacy and effectiveness of programs in higher education a significant determinant would be to investigate how others perceive curriculum development and revisions as well as the assessment of the institutions' products. The review of literature covers general curriculum evaluation, definitions of home economics, viewpoints about home economics curriculums, and evaluation studies of home economics curriculums.

GENERAL CURRICULUM EVALUATION

The concern that higher education should meet the needs of the students is not new to this decade, however, in recent years considerable pressure for changes has been exerted on institutions of higher education. Societal pressures, the overwhelming amount of knowledge and the demand of students require that higher education be relevant to the current mode of life. Unfortunately infrequent changes have occurred in curriculums over the past ten years, although individualized curriculum with the student as the focal consideration is a marked trend in a limited number of institutions. The educational system is capable of influencing societal changes. Therefore it is inevitable that curriculums be modified as the environmental conditions change. Dressel and DeLisle (1969) believe that colleges

and universities are in a viable position as contributors to the intellectual growth of students. Education, they state, must not only be efficient but must provide students with the abilities to live and work in a social, economic and political society complex with scientific and technological developments. As the environment changes, the educational systems must prepare students to influence societal changes. Therefore curriculums need to be pertinent to the content of contemporary life.

Wood (1963) credits much of the current student unrest as being centered on the irrelevance of curriculum offerings to present and future concerns of students. Education can serve the societal challenge of change, but to accomplish this a critical approach must be taken to evaluate content of programs. The development of functional curriculums in terms of actual needs of the student population must be achieved. Rugg (1969) concurs that higher education must prepare youth to confront the underlying forces of life and to deal with the integrated structure of business. The problems of relevant programming may require an entire revision of the total curriculum, he points out, not refinement of the existing subjects.

Some colleges and universities have tried to make some major changes in their offerings. Dressel (1968) indicates one trend in liberal education is to have a more integrated community service role of the university, as evidenced by the phrase "learning environment" or "living and learning centers." He views the community service experience as fostering realistic understanding of adult citizenship

and as having significance in the student's experience of understanding social problems. Other institutions are attempting to have integrative seminars which facilitate independence and interdependence of the disciplines so that students may achieve greater breadth, depth and new perceptions of knowledge. Dressel reports that work-study experiences are being developed in many institutions so as to involve students' campus experiences with practical, realistic vocational experiences. Still another way for increasing self-reliance and insight among students is the independent study approach, and similar in scope, the honors program.

Dressel (1968) believes all courses taken should be viewed as contributing toward the competencies which develop from the total college education. Curriculum changes are only successful when students and faculty have an awareness of the total program's continuity and are committed to individualized instruction. Before this individualization is formalized, the future goals of the individual must be considered. The student himself must understand the relationship his coursework has to his ultimate goals and the relevance of the planned experiences for his professional future. Alexander (1968) concurs with Dressel in that independent study provides a way to individualize a curriculum for the learner. He views as necessary the current concern to have curriculum opportunities structured for the particular student.

Lack of agreement exists on the rationales for the development of curriculum. Payne (1969) reports that colleges and universities

vary in the extent of formal program planning. The responsibility of curriculum decisions, other than course title identification and brief descriptions, are often undertaken by an individual faculty member.

One of the major difficulties in curriculum development and revisions arises, Dressel (1968) believes, when the preparation tends to become highly organized in requisites. There have been some attempts by many fields to reduce professional requirements thus permitting expansion of the basic and contributive arts, sciences, and social sciences.

One of the problems of program evaluation through the appraisal of student achievement is that students are not in a position to judge the effectiveness of a curriculum until they experience its use after graduation. According to Dressel (1968), "The analysis indicates that curriculum evaluation must be undertaken from several different perspectives (p. 195)."

Galloway (1969) at a 1968 summer conference at Syracuse University notes "any" curriculum will not satisfy man in his efforts to become more learned, intelligent and creative. Without the ideas generated from those who are to be affected it is unlikely that development of the curriculum will actually take place. At the same conference Combs (1969) observes that if the humanistic approach is taken in curriculum development, then students' viewpoints will be an integral part of the involvement. Statements by Wiseman and Pidgeon (1970) indicate that most institutions are recognizing that student evaluation is a crucial component of curriculum revision.

The ultimate judgment for curriculum changes should be related to the student and the educational aims pursued by the institution. A curriculum needs to remain flexible and to be responsive to the new demands that result from changes in our environment. This can be accomplished only by an evaluation of aims and achievements.

Grobman (1970) remarks that basic to any curriculum is a philosophy which reflects the purposes and role of education in society, and undergirding it must be a theory of learning. She further states:

> Curriculum can be broadly viewed as including everything needed to achieve the curriculum goals - all classroom contacts, and all materials, for student and teacher, and possibly training for the teacher (p. 113).

To achieve educational relevance which will help students examine their own basic assumptions about the world Metcalf and Hunt (1971) suggest that teachers will need to comprehend and be familiar with the attitudes, values, beliefs and interests of the students. "A curriculum that would assist young people in an examination of their basic assumptions about society and its improvement, must deal with values and social policies (p. 152)." In search for relevance, so state the authors, one must take seriously the problem of the best way to achieve drastic system change. They further express the following ideas about education:

> A relevant curriculum is sometimes defined as one addressed to the personal problems of youth. This is not good enough. It is more relevant to engage young people in a study of the problems of the larger culture in which many of their personal

> problems have their origin. The culture of most significance to the young consists of those aspects that are problematic - that is, the larger conflicts and confusions which translate into the conflicts and confusions of individuals (p. 154-155).

Metcalf and Hunt believe the significant questions about relevancy apply to personal development and self-analysis. They observe:

> The significant questions are: What kind of person am I now? What will I become if present habits and trends persist? What kind of person would I like to become? What can be done about tendencies and preferences that conflict (p. 155)?

There are criteria associated with the concept of relevancy which is the core of any "prescription" or conceptual framework, states Goldman (1971). A relevant curriculum, as he perceives it, is active rather than passive; it deals with personal, community and societal values and is based on familiar experiences which interest students. He views the total community a learning laboratory which is an integral part of the curriculum.

According to Shane (1971) relevance is more than the inclusion of subject matter and the provision of experiences that students say are immediately meaningful, interesting and useful. Relevant education, he asserts, introduces students to participation in events and tasks which confront individuals in the real world.

A measure of effective education can be seen in the technological and scientific accomplishments of individuals in our society. Crosby (1971) points out, "It would be hard to deny that education has had something to do with these achievements (p. 202)." According to Crosby,

"many people, institutions, organizations, and issues will contribute to the curriculum change demanded by a new world. Only the teacher can effect this change (p. 209)." If education is the prime instrument for societal changes to assist the populace in the achievement of their objectives, then suggests Crosby, the professional educator must give direction to an identification of roles and functions associated with students, parents, community organizations and governmental agencies. "The true professional knows how to involve the many groups who must have a voice in education, but he remains in control of curriculum change (p. 209)."

DEFINITIONS OF HOME ECONOMICS

Since the inception of home economics as a field, the basic definition of home economics has remained fairly constant. In 1902 it was defined as:

> Home economics, in its most comprehensive sense is the study of the laws, conditions, principles and ideals which are concerned on the one hand with man's immediate physical environment and on the other with his nature as a social being and is the study especially of the relation between these two factors (Craig, 1945, p. 15).

Bane and Chapin (1945) interpret home economics as a field which provides education in the social and natural sciences, ultimately leading to understandings of the social, psychological and physical factors that affect human behavior. Bane (1955) indicates that the role of home economists was exemplified by their contributions during times of national need. For example during World Wars I and II, home

economists played an important role in the conservation of food. Professional commitment during the depression period of this country was shown when home economists became especially active in social work and cooperated to help families in need.

East (1965) perceives home economics as a professional field composed of a related group of subject areas all of which are concerned with "helping families shape both the parts and the whole of the pattern of daily living (p. 387)." East identifies the role of the home economics profession as, "We are concerned with the everyday common, familiar routines and attitudes and practices that usually are performed within a family setting (p. 378)."

VIEWPOINTS ABOUT HOME ECONOMICS CURRICULUMS

Since the basic definition of home economics has changed little, the curriculums offered during the years have included many of the same offerings. They have been varied in their content, dependent upon the societal needs of families and individuals.

Over 25 years ago C. M. Brown (1943) recommended an experimental approach in the development of curriculum. She suggested a combination or joint majors in an effort to offer professional training for various types of careers such as "home economics and social case work" and "writing and broadcasting with home economics." Spafford (1949) writes, "increasingly educators realize that the school should concern itself with the complete growth of the student; that intellectual development does not take place apart from personal, social, or

physical growth (p. 13)." The general education of home economics majors, she believes, should include studies in the physical, biological and social sciences.

Curriculums should recognize the need for flexibility to provide for variations in personal goals of men and women, so asserts Beatley (1955). "Insofar as the potential contributions of women to our common life differ from those of men, our curriculum must acknowledge these differences and provide accordingly (p. 4)." He points out that the best curriculum identifies the problem areas most graduates will have to meet. He defines these as being the individual's personal life, community life, home and family life and the occupational life. With this philosophy of education, Beatley denotes, home economics as the "best case in point" of a professional area which extends its values into the home environment. He takes cognizance of the fact that colleges will be increasingly part of general education, and observes:

> . . . the award of the college degree will come to mean that the student has grasped the opportunity for self-education provided in a program appropriate to him; that he gives promise of adapting himself in his personal and social relationships to the outside world; and that he possesses the social conscience and the will to make himself a constructive force in the community of which he is a part (p. 52).

O'Toole (1961) perceives a need for a well-balanced curriculum with the inclusion of breadth of liberal education and depth for some professional competency. Home economics has a responsibility in higher education to function to educate the student for effective living as an individual, a family member and parent, a community member and a worker. O'Toole's viewpoint holds that academic preparation must

contribute to the total development of an individual; the curriculum must also consider the multiplicity of roles of women in a contemporary society. Continuous evaluation and effective planning, O'Toole believes, is essential to provide a curriculum with flexibility to meet individual needs of all students.

The complicated demands of contemporary life require that professional education prepare graduates to be effective for a variety of roles. To accomplish this Lee and Dressel (1963) suggest three objectives for an educational program: inclusion of knowledge and the complement of skills distinctive to the particular profession; a general education to live competently in a complex democratic society; and development of self-understanding, a moral ground, and a consistent view of the world. A properly balanced professional curriculum can do no more than acquaint the student with the basic principles related to a particular field sufficient to qualify him for initial employment. Lee and Dressel report that the dual objective theory for the preparation of family and community life, combined with the preparation for a vocation, is not always clearly viewed. They further report:

> The unity and the possibly distinctive role of home economics as a field concerned with the problems of the home and family have become obscured-at least from an external point of view-as the number and diversity of professional specialities have increased (p. 41).

In writing about the diversity of the home economics profession, Humphreyville (1963) identifies the varied educational background and delineates the qualifications of the multiple positions available to those in the field. She recommends that the student make an early

academic choice for an undergraduate specialization. With these diversified professional needs of home economists, universities are faced with the persistent issue of how to organize programs to prepare graduates for the different professions.

At a presentation during the 56th annual meeting of the American Home Economics Association, Henderson (1965) charged, "No field can be stronger than its colleges and universities, the fountainhead where its leaders are prepared at the graduate and undergraduate levels (p. 759)." She also states that among those who employ home economics graduates there is a difference of opinion as to the competencies needed. The significance of this comment can be realized when a look is taken at the diversification of the profession which prepares the following major groups: home economics in food and equipment business; those occupied in family relations and child development or family finance; dietitians; retailers of clothing and home furnishing; secondary and post-secondary teachers; family specialists in community organizations; and researchers. Although there is diversity in the field of home economics, Henderson depicts an emphasis which brings a commonness of purpose to the field. She believes the purpose is to improve health and human development, and welfare through the everyday life of families. She poses questions about the curriculum to those concerned with the college preparation of the home economist:

> Shall home economics be taught primarily for intellectual accomplishment, or also for practical results? Chiefly for understanding of theory, or also for practiced skill? With emphasis on scholarship, or on the capacity for service (p. 762-763)?

Henderson believes advice from alumni and employers contribute to the establishment of a relevant curriculum; however, in the final analysis, decisions must be made by the educators in institutions of higher learning. This establishing of specific kinds of standards for curriculum development, at its best, seeks advice from numerous areas including students and parents.

Home economists cannot agree on whether or not a "core program" is needed in home economics, meaning some courses which home economists majors must take. The "core" with its common learnings in the root disciplines and in home economics would "demonstrate the integrating and unifying forces within our profession," so states Fleck (1965). She points out in justification of a core program, "home economics must be a unified profession despite specialization (p. 237)." Fleck suggests students must be adequately grounded in the essentials basic to wholesome family living. They should have sufficient knowledge of every aspect of their profession in order to operate effectively as home economists.

The inclusion of general education in the respective curriculums in home economics is required if faculties are to help students achieve growth as "whole" persons to enrich daily living and to increase effectiveness as individuals in a rapidly changing environment, state Lippeatt and Brown (1965). It is also the responsibility of home economics to provide carefully planned curriculums for the professional education of students to function as workers in society. There is therefore a need for a realistic balance of liberal and

professional education. Lippeatt and Brown believe that in order to achieve this objective, forward-looking educators may be committed to face a future with sound programs of experimentation.

Jefferson (1967) writes of the need for establishing a mutually agreed upon and accepted criteria for adequate professional undergraduate education. Societal forces and the complex needs of the population have revolved into increased diversity of career positions with higher expectations for top level performance. She states that "undergraduate education needs to provide minimum competence for beginning professional service (p. 254)."

Home economics must view the economics and social needs of the society from a broad perspective and respond to needs of rural and urban society, as well as countries abroad (McGrath and Johnson, 1968). Hurt and Alexander (1969) are in agreement with this viewpoint, and in addition, encourage home economics to greater consideration of the social and cultural needs in the depressed areas.

According to Simpson (1968) the preparation for the dual role of homemaker-wage earner is viewed by most home economics educators as particularly important for women students. There are curriculum challenges in the total field of education and Simpson suggests these challenges be viewed as six major bases for curriculum decisions: conditions of society and related needs; needs of students; needs related to the local situation; content and organization of the subject field; developments in the educational field, and on a philosophical basis.

The pattern which depicts the dual lives of women emerges with a startling clarity. Most women, according to K. P. Cross (1968), expect to pursue a career or at least combine employment and homemaking activities. However, it is relatively clear that top priority is given to marriage and family life. In writing about women in the employment field, Kievit (1968) indicates there is an increasing proportion of women gainfully employed. This fact suggests implications for the development of home economic programs which contribute to the initial preparation of women for employment. According to Hughes (1969) a way to accept responsibility for preparing students to meet today's challenges and problems is to teach an understanding of the dual role of the homemaker-wage earner as an integral area of concern of families. This is particularly important when one views the multiple role of the women graduates who combine a professional career with family life, states Hughes, in agreement with Cross (1968) and Kievit (1968).

Because of the diversity of opinions about what home economics in higher education should be, the Association of Administrators of Home Economics requested a study be made of the field. Under special funding of the Carnegie Foundation, Earl J. McGrath conducted the study of the future role and scope of home economics. McGrath and Johnson (1968) report that undergraduate professional education should become less specialized and more general. The implications of the McGrath study are that a broad base of nonprofessional instruction with a minimal range of specialized majors be required at the

undergraduate level. A fifth year of study should be provided for those who plan to pursue a professional career. He recommends that the structure of the home economics curricular arrangement should provide most of its own courses in the areas of knowledge which compose the uniqueness of home economics. In this way, McGrath points out, instruction will be relevant to the goals related to the various disciplines with which the home economics graduate may be expected to deal. It is imperative this teaching be relegated to those best able to relate the theoretical substance to the contemporary social problems and those of family life. McGrath and Johnson recommend the provision of some specialized majors, although the primary need is for a more general approach with a broad major in the undergraduate programs which offers a wide cultural perspective. This would allow students to select courses out of the home economics department or to enroll in interdepartmental courses taught by joint appointments from home economics and other fields. According to these authors, "A broad undergraduate major should range from human development to consumer economics with a close integration with analytic disciplines such as biology, sociology, and psychology (p. 88-89)."

Indications supported by the findings of the McGrath report show no lessening in the need for individuals trained in the skills of the home economics professions. According to McGrath, there is a demand for both generalists and specialists in the professions. In order to meet this demand it is imperative to adapt to creative organization of new programs which are relevant to social trends and

the changing conditions of life. He believes, "Everybody has to be better prepared today to live in this complex world with the knowledge explosion and the rapid change in the conditions of life (p. 514)." The report supports the contention that home economics can enhance their "already substantial contribution to the productiveness, the well-being, and the happiness of our people as well as those in other lands (p. 510-511)." Frederick (1972) concurs with McGrath (1968) in that home economists must adapt their courses to the currents of change in our culture.

Significant and enduring progress could be made in the home economics field, L. C. Wilson (1971) expresses, if the curriculum is identified with the arts rather than the vocations or sciences. He points out an important current need is for home management education which is more "art" than "science" to the extent it has to deal with value choices, economic options and educational ambitions.

Concern for the relevancy of home economics at universities and colleges has continued since the McGrath Study. All segments of the program of home economics in higher education are being examined. In 1970 a national Research Projection Workshop for administrators and research workers was held to ascertain if the research in home economics was contributing to the improvement of the quality of living and family development in society. Reports from various groups which have previously met were given. Since research findings have implications for resident teaching, extension, and other continuing education, Schlater (1970) believes that it seems important that research goals be identified

which contribute to the major objectives of the field. Schlater, from this meeting and others, reports that the major research goals for home economics formulated were: to improve conditions that contribute to man's psychological and social development, his physiological health and development, the physical components of the near environment, consumer competence and family resource use, and the quality and availability of community services. Schlater, in writing of these home economics goals, indicates flexibility should be increased and attention given to the development of programs suitable to the student's competence and objectives. She suggests:

> Students, at the undergraduate and graduate levels, must be well versed in the basic disciplines to assure knowledge of theoretical foundations and methodological approaches related to applied disciplines (p. 64).

Clark (1972) as moderator for a symposium held at the American Home Economics Association annual meeting in Denver, views the responsibility of home economics to translate the long range research goals of home economics into action for the improvement of the lives of individuals and families. The unique research responsibility of the home economics profession, Clark perceives, is to improve the conditions which contribute to the physical components of the near environment of the consumer's resource utilizations and all the qualitative community services that contribute and enrich family life. Unless these goals are then translated into action which ultimately lead to the overall improvement in the lives of individuals and families, there is little value in their development.

EVALUATION STUDIES OF HOME ECONOMICS CURRICULUMS

In order to find out what are the attitudes of different segments of the population concerned with the home economics curriculums, various evaluation studies have been conducted throughout the last two decades.

The report by Mead (1949) on a survey of college graduates who were members of the American Association of University Women, reveals that these women felt "that a college education should be broad enough to cover every important aspect of each woman's life and that a college education should give more specific skills, more practice in doing things (p. 10)." Mead further reports the demand by the graduates was for flexibility with opportunity for more liberal arts in home economics and more home economics for those in liberal arts. The respondents felt college should prepare women for the multiplicity of roles of homemaker, wife, mother, community participant, and for an understanding and tolerance of world situations.

Fehlmann (1954) conducted a survey to evaluate the curriculum core in the home economics department as viewed by graduates of 31 years at the University of Colorado. Eighty-five percent of those surveyed were married women and 61% of this group had families. In agreement with research done by K. P. Cross (1968) that most women expect dual lives as homemakers and as career women, three-fourths of the graduates in the Fehlmann survey had pursued a career. The graduates were asked to indicate the helpfulness of the following core courses:

> Food and Nutrition; Clothing, Costume Design and Textiles; Child Development; Home Management; House Planning and Decoration; with the pre-requisites courses in chemistry, bacteriology, physiology, fine arts, psychology, and economics (p. 10).

The core of required courses was ranked very helpful or somewhat helpful in homemaking by the majority of graduates. Meal planning, foods and nutrition ranked highest when the "very helpful" category was considered alone. The graduates' recommendations for additions to the core were listed as: courses in marriage, 65%; the family 57%; and a nursery school education course, 30%. Thirty percent of the graduates named psychology courses as those "which would contribute toward a better understanding to the family problems (p. 11)." The Fehlmann study concludes that the interests and needs for education of home and family living were being met for the most part by the university's curriculum core for home economics majors.

A concern for the opinions of the graduates of the home economics program from Brooklyn College in New York was considered by M. K. Wilson (1956). The study indicates that the graduates considered the greatest emphasis and help had been in the areas of "making effective use of information and ideas" and in "managing and carrying out homemaking responsibilities." In general, the graduates surveyed were well satisfied with the courses taken in their curriculum. However, they felt that the least help had been received in the areas of "becoming professionally oriented." The respondents' recommendations for courses which they felt should have less emphasis were in the related areas with suggestions for "less chemistry, design, and history."

Wilson believes that the graduates evaluated the usefulness of their college preparation in terms of their successful pursuit of their personal or professional activities. She further suggests that as a result of the study, more individualized programs be provided so that students have a wider range of choices.

An exploratory study by Lyle (1957) of graduates from Iowa State College covering a 20 year period testifies that these alumnae are characteristic of the national trend toward the employment of married women. Sixty-four percent of the married graduates had been employed after marriage, with 42% employed full time. The study further reveals approximately 21% were first employed in work other than that of their professional preparation. Of the alumnae who had used their professional training, 57% found it "very helpful and adequate;" 40% rated it "helpful but not adequate." The majority of the alumnae who had been employed were well satisfied with the professional preparation they had received in college. The alumnae also recommended an increase in courses such as speech, 38%; English literature, 30%; and psychology, 26%. Courses not considered relevant were: economics, 33%; chemistry, 29%; and history, 20%. It is important to point out that graduates from the early class rather than the later class recommended the decrease in economics and chemistry.

When home economics graduates from Morgan State College were polled for their opinions about curriculum improvement, the T. K. Brown (1958) study reveals the programs were not adequately meeting the needs of all students. The suggestions for curriculum improvement

are: enrichment of existing courses; for more personal counseling; for vocational guidance; for information about professional opportunities; and for course experiences which are more practical and realistic. The implication is clear there is need for continuous follow-up of graduates to discover whether programs are meeting the personal and professional needs of the graduates.

The graduates from Michigan State University were solicited for evaluation of their professional preparation by Miller (1959) to determine the effectiveness of the academic program for managerial responsibilities in the food service industry. The results of the study denotes that there should be included in the curriculum additional theory and practical application of the managerial skills. The findings reflect a need for increased understanding and practical experience in effective communication, especially related to self-expression and techniques employed in group leadership so graduates can be more effective in their professional positions.

The purposes of the A. Cross (1960) study were to identify similarities and dissimilarities in activities of homemaking teachers and home agents, and to determine if the graduates felt their college preparation had been adequate or inadequate. Cross reveals that a majority of the respondents had adequate preparation for two-thirds of their activities. However, the graduates were inadequate in their preparation for food production, housing, home improvement and community relationships.

Home economics graduates from Louisiana were asked their opinions about the adequacy of the courses in each of their respective

curriculums. Nichols (1961) conducted this research for the Louisiana Home Economics Association, and graduates listed in order of priority the most helpful courses as food preparation, clothing, and home management. Courses other than home economics which the respondents felt contributed to their professional or personal life were social sciences, English, the physical sciences, psychology, and speech. Of the 293 respondents in the Nichols study, 218 were married, 238 graduates had been employed in full-time positions and 23 in part-time positions. Nichols' research supports O'Toole's (1961) recommendation to consider curriculums for the dual role of education for the woman student.

The attitudes of graduates were solicited by Heinz (1963) in terms of their competencies in professional employment. They were asked to evaluate the effectiveness of their education in the College of Home Economics at the University of Maryland. She determined that, in general, the "professional preparation as related to initial employment" was judged as satisfactory. More practical experience was frequently mentioned as desirable by the graduates.

Both Oregon State University home economics teaching graduates and those entering other home economics professions believe a strong subject matter background is paramount for all home economics areas, according to the findings by Lea (1963). The study was designed to solicit from the graduates whether or not the curriculum for home economics students who plan to teach should differ from those students in other home economics majors. The results indicate that regardless of the professional area selected, the same basic foundation of home

economics knowledge is needed by all students. Additional courses, the graduates suggest, should be included in the curriculums for the preparation of specific professional choices.

The effectiveness of home economics programs in preparing an individual for professional and family life was studied by Norton (1964). The majority of the graduates when contacted were married, and had at one time been employed since graduation. At the time of the study, however, the majority were full-time homemakers. Fifty-six percent of the graduates rated their professional preparation as adequate, and 47% rated the family life preparation as adequate. The findings indicate the majority of the respondents were satisfied with the college preparation received, however, Norton's survey reveals the graduates indicated a need for more emphasis on the practical aspects. The graduates suggested that home management classes be made more realistic, and practical electives in child care, household finances, furniture and appliance selection be incorporated. The graduates also expressed a need for flexibility in their programs.

Findings from a survey conducted by Stevens and Osborn (1965) of home economics graduates from the University of Iowa, state that college preparation is useful in both professional and family life. Courses in foods and nutrition are most frequently described as being functional. Most graduates expressed satisfaction with their liberal education and value the courses which prepare them for the child-bearing stage of family development. The study further discloses that the majority of the graduates hold a dual role of homemaker and professional employee.

The Good Housekeeping Institute, under the direction of Wham (1965), conducted a study to ascertain how business home economists perceive their undergraduate curriculum in home economics. The recommendations from the Wham study are that a program of study for home economists in business should include science, art, language usage, and psychology with emphasis on the applied aspects of the major. Courses other than home economics mentioned as most pertinent are speech, English, psychology, journalism and art. Least helpful courses in the profession are education, history, economics, and physics. An overall need for home economists in business is for the improvement of communications, both written and spoken.

Home economics education graduates from Kansas State University were polled by Eshbaugh (1965) regarding the adequacy of their college preparation. The course, Methods of Teaching Home Economics, was reported as a functional course by all the respondents. Student teaching provided adequate preparation as indicated by 83% of the respondents, however, the graduates recommended an extended length of student teaching and for more emphasis on the practical application of educational psychology and principles of secondary education. In a follow-up study of home economics beginning teachers who graduated from Ohio State University, Blodgett (1965) reports that the respondents felt an entire quarter should be spent for the student teaching program.

Wall (1965) in an historical study of home economics reports that changes in the curriculums are based on the home conditions and lives of women. Industrialization, the social milieu of the time, and

the educational position of women are factors leading to change. She concludes that courses in consumer education, management, child care and development and family living should receive more emphasis in all curriculums. The author indicates specialized and occupational courses should be additions to the curriculums of any state.

The benefits received from the college program at Mississippi College were researched by McGuffee (1966) through an analysis of value judgments of the graduates from 1960 through 1964. Of the graduates, 82% were working in areas related to their college major, 6% were in the area of their college minor, and 11% were working in an area different from their major or minor. Reasons given for employment outside their professional preparation areas were: unavailable job with a higher salary; job opportunity restricted by the student's locality; or family responsibilities made a full-time job difficult. The graduates suggested curriculum changes to include an expansion of family life education, honors program, research opportunities and a more practical teacher training program. McGuffee reports that home economics has a significantly higher evaluation rating for professional preparation as compared to other areas of specialization.

A doctoral dissertation completed by McKee (1966) at the University of Tulsa, investigated the home economics curriculum as it contributed to liberal and professional education, and the relationship of home economics to the liberal arts curriculum. She concludes from her study, that "home economics curriculums should be organized in view of the educational, cultural and business interests of the community

in which the university is located (p. 51)." McKee believes home economics to be a collection of specialties and perceives the sequence of courses from related disciplines as a multiple approach for a unified curriculum of interdepartmental majors.

In an evaluation of home economics education curriculums in selected colleges and universities, Hsu (1967) reports a trend toward increased courses in the area of arts and sciences, and a decrease in required home economics courses. Home economics courses which are required most frequently are food, nutrition, child development, family relationships, home management, clothing selection, and consumer education. There is similarity, Hsu notes, in the purposes of the curriculums of the majority of schools. Most of the curriculums provide preparation for a professional career and also center on the improvement of home, family and community living.

Beasley's (1968) study of beginning teachers reports that the most frequently identifiable problem indicated by more than one half of the teachers, was working with students. Her recommendation from this study is to offer a longer time for student teaching or more observed situations of different kinds. Similar findings are expressed by Burnett (1968) from her study of beginning teachers who graduated from Southern Illinois University. In accordance with the teacher's personal evaluation requesting more experiences, Burnett recommends an increase in the amount of required observations. Courses which the graduates felt "most helpful" to their professional and personal lives were home economics education, nutrition, clothing construction, and family relations in rank order.

The attitudes of graduates expressed in a survey by Mullen (1968) agree with the results of the studies of Beasley (1968) and Burnett (1968). The respondents in the three studies suggest extended observations and additional student teaching experiences be provided in the curriculum. Mullen reports the majority of the home economics graduates from the University of North Carolina were employed full time. "No positions available" and "family responsibilities" were the major reasons for those unemployed in home economics positions. She further reports, the majority of the respondents rated their college preparation as adequate. The laboratory classes, stated the graduates, had been intellectually stimulating and provided for application of principles and adequate development of essential skills. The respondents further recommend additional emphasis should be placed on skills for curriculum improvement.

Christian's (1969) survey of the graduates of the University of Southern Mississippi supports the Stevens and Osborn (1965) study in which the majority of the alumnae were employed outside the home and therefore combined marriage and family life with their professional life. Alumnae were asked to rate their courses which had contributed toward their personal, professional, home, social and civic life. Seventy-four percent of the graduates rated clothing and textiles the highest of any area of home economics. Food and nutrition rated 69% in usefulness which is in agreement with the Stevens and Osborn (1965) study. Field work received a 71% rating from the majors in equipment and clothing and textiles. The student teaching courses, rated only

by home economics education and child development majors, were considered useful by 56% of the graduates.

The opinions of graduates from Florida State University were sought to determine the adequacy of their college curriculums. The findings of Von dem Bussche (1969) are consistent with Stevens and Osborn (1965) in that the majority of graduates in the respective studies highly rated their education as relevant for their personal and professional life. The contribution of college preparation in relation to personal life was given the same high rating by graduates from each of the departments of Clothing and Textiles, Food and Nutrition, Home and Family Life, and Home Economics Education. The highest percentage of graduates who rated the preparation for their professional and personal life as "very helpful" and "adequate" were in the Department of Food and Nutrition. Von dem Bussche found a number of graduates currently employed in areas other than their college preparation, and the greatest diversity of occupations was held by graduates of the home economics education.

Compton (1969) conducted a study to investigate the interest patterns of students as compared to individuals employed in specific professions. Her findings indicate a close proximity of students' and professionals' interests between those engaged in a particular specialization. The pattern of likes and dislikes from one professional area differs from those to another professional area. The implications for career advisement and for curriculum development are that recognition and consideration must be given to the differing

interests and personalities of students in various specializations of home economics. The students, Compton believes, do not fit into a common curriculum.

Home economists employed by business were asked to evaluate the adequacy of their undergraduate preparation in a study by Clemens (1971). These findings point out a need for specialization in the home economics area related to the intended professional choice. Clemens cites a need for more emphasis on courses in business communications, and the professional specialization courses. Experimental foods and advanced equipment are desirable in professional preparation. The business home economists indicated courses in family relations and education as being less than helpful.

When Gebo (1971) surveyed the graduates from the University of Montana, she inquired what additions should be made to the home economics program. Her respondents demanded more practical application of the information and knowledge gained in all areas. A need was expressed by the graduates for additional work in home economics and education methods courses to include additional classroom observation and experience prior to student teaching. Interdisciplinary courses such as anthropology, sociology, psychology, and political science were also mentioned as necessary by the respondents. Work experiences off campus with community involvement, up-to-date education courses and relevant consumer education coursework were expressed as desirable additions by the alumnae. The graduates indicated an emphasis in the curriculum should be placed on the psychological and sociological aspects of home

economics. Courses recommended for elimination from the program by the greatest number of respondents were home management courses and/or the requirement for living in the home living center.

Johnson and Swope (1972) elicited the opinions of home economics administrators on current issues and trends in the field. Results from this survey indicate that a majority of administrators favor traditional, tightly prescribed home economics curriculums with little latitude in the undergraduate programs for students to meet their own felt needs. Few programs include field experience, directed work experience, or internships which is probably needed by all majors in home economics, Johnson and Swope believe. Sixty-seven percent of those institutions they surveyed reported no changes in the home economics curriculums within the past three to five years. The authors suggest home economics institutions of higher education offer greater program flexibility, and more opportunities for preprofessional experience, independent study, newer teaching methods, and individualized programs. The implementation of interdisciplinary, interdepartmental and interinstitutional curriculums is recommended as highly desirable in home economics. Johnson and Swope believe it wise to anticipate students' needs for ultimate changes in the curriculum offerings before pressure is brought to bear upon the faculties and administrators. A recommendation as brought forth by the authors is:

> The adequacy and efficiency of home economics curricula can be judged by the degree to which professional home economists are produced who do, indeed, become effective agents of change in improving society (p. 16-17).

There is little disagreement in the field that home economics is a profession which services families. Ray (1970) indicates, however, there is considerable confusion regarding if the ultimate commitment is to individuals and society rather than to families. She believes home economists should be innovative instead of only responding to innovation. Educators, Ray suggests, should have as their paramount goal the development of the tools of communication and the fundamental skills for functioning in a complicated society filled with evolutionary change. As a challenge to educators Ray charges:

> Far beyond the teaching of the fundamental skills of home economics is the need to transmit the concept itself - the concept that man survives and social systems advance only as men in one generation accept responsibility for those who will become the next generation (p. 718).

In an address before the Kansas Home Economics Association Ack (1970) accuses many educational institutions of lacking relevancy and effect. Schools tend to be certifying institutions, he states, instead of learning centers where scholars would be interested in the discovery of new relationships or in the acquisition of new knowledge. In further articulation, he contends,

> How can course material be relevant if the student is never consulted about what he feels he needs to learn, what he feels he wants to learn, about the sequence of the presentation of material, or about the time required for its acquisition (p. 640)?

Academic institutions, believes Ack, must reappraise communications so as to adequately prepare students for effective participation in an increasingly complex world.

When concern is given to competencies needed by home economists in business, Strain (1970), a professional management consultant, reiterates:

> A business may need a home economist for any or all of six reasons: to make a profit, to increase sales, to meet competition, to handle consumer (or customer) matters, to achieve more efficiency at lower cost, and to repeat previous successes experienced with other home economists (p. 49).

He recommends that educators recognize the necessity of future curriculum revisions to prepare the student for the potential role in business with additional business-oriented courses. Strain perceives the major role of the home economist in business as "mastering her technology, interpreting that new technology for management's decisions, and keeping pace through research of new and useful developments (p. 53)."

The review of literature clearly indicates that curriculum revision must be a constant process, accelerating when societal conditions change rapidly. Institutions of higher education offering home economics programs can be "change agents" in society if the programs offered to students are relevant to the professional and personal lives they lead. Only when graduates, employers and other concerned individuals give input concerning the relevancy of the curriculums offered can meaningful revisions take place.

CHAPTER 3

METHODOLOGY AND PROCEDURE

GENERAL RESEARCH DESIGN

A stratified random sampling method derived from the Deming (1960) model which yields a proportionate sampling of the relevant strata was utilized in determining the individuals to whom the self-administered mail questionnaire would be sent. A sample size was selected such that the data generated therefrom would yield statistics at the .95 confidence level with a standard error of the mean of .057 which was considered necessary and sufficient for the purposes of this curriculum study.

SOURCE OF DATA

The population for this investigation was limited to the home economics graduates of the three state universities of higher education in the State of Arizona who earned a bachelor's or master's degree during the five year period, 1968 through 1972. These selected universities are the only institutions of higher education in Arizona which offer home economics.

The frames for the selection of the population were obtained from the alumni offices of the three Arizona institutions: Northern Arizona University, Flagstaff; Arizona State University, Tempe; and

the University of Arizona, Tucson. The listings from each university included the maiden and/or married name of each graduate and her respective mailing address. Because of the time factor and sampling difficulties, all graduates residing outside the continental United States were eliminated from the population. This excluded a total of 10 graduates from the three institutions. The list of graduates from each university was consecutively numbered and subsequently added to determine a total population of 951, and proportionate random sampling lists were compiled. The total number drawn for inclusion in this investigation was 297. Although it was not inherent in the sampling procedures, the random proportionate sample did not include any male subjects.

SAMPLE DESIGN

The determination of the sample size to provide results within a stated margin of error to provide data deemed necessary and sufficient for the purposes of this study was the following formula (Griffin, 1962):

$$N = \frac{(1.96)^2 pq}{(\sigma_M)^2}$$

where

N = the sample size necessary to obtain the desired confidence interval.

(1.96) = the standard unit of expression for confidence at the .05 level.

p = the proportion of respondents responding favorably to an important question.

q = the proportion of respondents not favorably responding to an important question.

σ_M = the standard error of the sampling mean.

Without prior knowledge of how the respondents might rate the adequacy of their preparation, the most conservative estimate was based on the null hypothesis of no difference between responses which implies a 50-50 split. A pq proportion of 50-50% was therefore utilized so that the above formula would yield the largest sample possible.

SELECTION PROCEDURE

A stratified proportionate random sample procedure was selected to be representative of the total population. The sample population size decided upon was N = 297 which is approximately 31% of the total population size of 951 graduates from the three Arizona universities. Total numbers from the population frames were as follows:

Stratum:

University A = 442

University B = 384

University C = 125

Proportions assigned per frame formula:

University A = .4647

University B = .4037

University C = .1332

Numbers to be selected per each stratum:

University A = 138

University B = 120

University C = 39

Graduates in each stratum were then numbered sequentially. A table of random numbers was consulted (Ostle, 1969) to select numbers of graduates for the sample from within each stratum to assure that every element in each of the stratum would have a known and equal probability of being selected for purposes of statistical analysis of the findings.

DATA GATHERING INSTRUMENT DESIGN

The preliminary plans for the development phase of the questionnaire included an examination of the catalogs from the three selected universities. The aim was to compile a common listing of courses which semantically had similar meaning to all respondents for their reactions as to the relevance of the courses for professional and/or personal life. Selected catalogs from institutions outside Arizona were also reviewed to ascertain common nomenclature for course listings since the respondents with master's degrees may have attended other than Arizona institutions. Once the course listing had been formulated, a jury of 11 home economics professors evaluated the listing for completeness so that no essential components would be excluded from the research design.

In addition to the relevance of courses for professional and/or personal competencies needed, the demographic characteristics of age

distribution, marital and family status, identified major, and institutions attended were solicited from the respondents. Whether or not the subjects were presently employed was asked, and if the home economists were unemployed, they were queried as to the major reason why. Respondents were also asked to list the three courses which "contributed most" and the three courses which were "least beneficial" to them in terms of their first and present employment. A like question was constructed about the courses which "contributed most" and were "least beneficial" to their personal competencies. When courses were viewed as being "least beneficial," the home economics graduates had the option to indicate reasons for the evaluation.

The questionnaire was then constructed and submitted to the jury of home economics professors for criticism. They suggested combining the listings into less categories so that the length of the questionnaire would be reduced. The questionnaire was then administered to 32 undergraduate senior students who were majoring in home economics. The students were asked to respond with opinions and criticisms on the wording of the directions, length of the questionnaire, and general understanding of the information sought. Based upon the comments and suggestions from the pre-test sample and the home economics professors, modifications were made and the final research questionnaire was developed for collecting the data. A self-administered mail questionnaire, exhibited in Appendix B, and an accompanying letter of transmittal, Appendix A, were sent to a stratified proportionate random sample of home economics graduates from the three Arizona universities.

The instrument was designed to yield information relative to the three stated null hypotheses:

1. Not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed professionally.

2. Not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed personally.

3. There are no significant differences among graduates of various professional majors with respect to rating of courses as "beneficial" or "adequate" for the development of competencies needed in their professional employment.

The questionnaire method was selected because the same responses would be solicited from each participant in the investigation. One of the advantages of the questionnaire method for eliciting responses to a curriculum survey is stated by Cronbach (1968),

> But questionnaires insufficiently valid for individual testing can be used in evaluating curricula, both because the student has little motive to distort and because the evaluator is comparing averages rather than individuals (p. 46).

Compton and Hall (1972) indicate other advantages of the questionnaire are that the respondent is permitted as much time as he wishes to consider an answer without feeling under pressure, and provision can be made for anonymity of the respondents.

A serious disadvantage of the mail questionnaire, Kerlinger (1964) states, is the possible lack of response with return rates of

less than 40%. In order to increase the rate of return, telephone calls were made to non-respondents in Arizona. In some instances, sampling with replacement, as recommended by Hays and Winkler (1970), was utilized in order that the 297 respondents, stratified by proportion of the population, would furnish point estimators that were unbiased, efficient and sufficient. In these cases the relevant frame was entered via randomized tables and requisite additional responses were selected to complete the 297 sample. According to Deming (1960) this additional selection by replacement does not affect the representativeness of the data so gathered.

STATISTICAL TREATMENT OF THE DATA

The data were coded and key punched onto IBM cards for subsequent processing. The tabulation of the data was accomplished through the use of the Univac 1100 Statistical Package for Social Sciences and was recorded on magnetic tape at the Arizona State University Computer Center.

To test the hypotheses, the following formula for chi square was used to determine if a significant difference occurred from the obtained data (Downie & Heath, 1970):

$$X^2 = \sum_{1}^{} \frac{(f_o - f_e)^2}{f_e}$$

where

X^2 = the chi square

f_o = the observed frequency of response

f_e = the expected frequency of response

$\sum$ = the sum of the data

The number of degrees of freedom used to determine the significance level for chi square was determined by the formula:

$$df = (r - 1)(c - 1)$$

where

r = the number of rows in the contingency table

c = the number of columns in the contingency table

In this study the first and second null hypotheses that not more than 50% of the courses will be favorably rated by the graduates for their professional and personal lives respectively are rejected if the value of chi square is equal to or not less than 3.841 at the .05 level of significance for one degree of freedom. The third null hypothesis of no difference among courses of various majors with respect to preparation for competencies needed in their professional employment is rejected if the chi square of the combined majors for each course listed is equal to or exceeds 15.507 at the .05 level of significance for eight degrees of freedom. Chi square tables were entered for interpretation of the computed values (Downie & Heath, 1970).

Further analyses were made of frequencies and percentages of the open-ended questions that pertained to those courses which the respondents identified as "contributed most" and "least beneficial" to competencies needed. Descriptive data and selected cross-tabulations were made to provide additional information about the sample population.

CHAPTER 4

RESULTS AND ANALYSIS OF THE DATA

The members of the sample who participated in this home economics curriculum study represented the three state-supported institutions of higher education in Arizona. The demographic data obtained and the answers of the respondents serve as the basis for the conclusions and recommendations concerning the relevance of the university courses to the competencies needed professionally and personally by contemporary home economists.

The results and analysis of the data are discussed under sections on the characteristics of the respondents, the rank order of beneficial courses, the relevance of specific courses for respective majors, the validation of the hypotheses, and the additional analysis of answers to the open-ended questions in the instrument.

CHARACTERISTICS OF RESPONDENTS

A number of items of demographic nature were asked of the respondents because what the graduates are doing after earning their degrees has implications for the relevance of home economics programs which meet the professional and personal needs of the graduates. The 297 respondents represented in the study were from nine areas of specialization in home economics.

Thirty percent of the sample had attended a community college prior to enrollment at a university. According to Garbin and Vaughn (1971), this is only slightly less than the estimated one out of three students who enter universities with prior community college experience. Of the total population, 90.6% had graduated from the three Arizona educational institutions. Only 77 of the respondents had obtained an advanced degree, and 89.6% of these degrees were earned at Arizona universities (See Table 26, Appendix C).

The largest proportion of respondents or approximately 45% had majored in Home Economics Education. Table 1 indicates the numbers and the percentages of each of these identified majors from the three institutions of higher education depicted in this study.

The highest percentage of the home economists in this study were between the 20 and 30 age range, with only 19.7% being 31 years or older. The answers in this study, therefore, are reflective of a youthful population. (Table 27, Appendix C).

The findings revealed that of the 297 respondents, 23.6% were single, 8.7% were divorced, .03% were widowed, and the majority, 67.3%, were married. Only 39.4% of the sample population had children.

Of the married graduates, 67% were engaged in full-time or part-time employment. This supports the recommendation by O'Toole (1961), Simpson (1968), K. P. Cross (1968), Kievet (1968), and Hughes (1969), that preparation for the dual role of homemaker and wage earner should be stressed in home economics curriculums.

The majority of the sample from all majors were presently employed in full-time positions, with 55.8% of the group engaged in the

Table 1

Home Economics Majors
Represented in the Study

Majors	Institution A N = 138		Institution B N = 120		Institution C N = 39		Total N = 297	
	No.	%	No.	%	No.	%	No.	%
Education	66	47.8	40	33.3	28	71.7	134	45.1
General	27	19.5	4	3.3	1	2.5	32	10.7
Foods, Nutrition	13	9.4	8	6.6	3	7.6	24	8.0
Textiles, Clothing	14	10.1	29	24.1	3	7.6	46	15.4
Child Development, Family Relations	9	6.5	16	13.3	0		25	8.4
Foods, Equipment	8	5.7	0		1	2.5	9	3.0
Dietetics	1	.7	2	1.6	3	7.6	6	2.0
Management, Consumer Economics	0		7	5.8	0		7	2.3
Interior Design	0		14	11.6	0		14	4.7

teaching profession. This affirms an expected outcome since the highest percentage of majors sampled had a background in Home Economics Education. Of all those employed full time, only 11.6% were working outside of the home economics profession. A 7.6% decrease in full-time employment and an 8.4% decrease in part-time work was reported between first and present positions of employment. This may be related to the fact that over 80% of the respondents in this study are in the child-bearing stage of the family life cycle. Table 2 further indicates specific employment

classification for the first position held after graduation, as well as the present employment.

Table 2

Employment by Specialization
First and Present Positions

Specialization	First Position				Present Position			
	Full-Time		Part-Time		Full-Time		Part-Time	
	N = 227		N = 39		N = 172		N = 33	
	No.	%	No.	%	No.	%	No.	%
Foods, Equipment	9	3.9	1	2.5	8	4.6	2	6.0
Textile, Clothing	26	11.4	2	5.1	21	12.2	0	0
Interior Design	5	2.2	0	0	5	2.9	0	0
Dietetics	17	7.4	3	7.6	12	6.9	3	9.0
Teaching	125	55.0	22	56.4	96	55.8	17	51.5
Cooperative Extension, Social Welfare	5	2.2	2	5.1	3	1.7	2	6.0
Public Relations	1	.4	1	2.5	1	.5	0	0
Sales	8	3.5	2	5.1	6	3.4	1	3.0
Other	31	13.6	6	15.3	20	11.6	8	24.2

Forty-one percent of those unemployed at the time of the survey stated that the major reason was family responsibility which prevented their absence from the home. A job shortage in the area was cited by 26.3% as being the prime factor for unemployment, and only 17.2% indicated it was by personal choice that they were not working. The return

to school for advanced work was reported by 10.9%, and the lack of geographical mobility was a major factor for 2.7% of the respondents who were unemployed. Only 1.8% of those currently not working cited insufficient qualifications as the reason for not having a position. Family responsibility and local job shortage were also cited by home economics graduates as the major reasons for unemployment in the McGuffee (1966) study and the Mullen (1968) survey.

RANK ORDER OF BENEFICIAL COURSES

The graduates were asked to respond to the relevancy of specific home economics and related area courses for the competencies needed in their present professional and personal roles. The respondents had the option to indicate from the total listing only those 36 home economics courses and 14 related area courses which applied. When the total responses and percentages for all three universities were calculated, rank order tables were established which list courses the respondents perceived as being "beneficial" to their present professional and personal roles. For reporting purposes here only the top third of the courses are cited. Complete rank order listings of the total home economics courses are presented in Appendix C, Tables 28 and 29.

The data clearly indicate that the top third of home economics courses selected by graduates as beneficial to professional competencies were, for the most part, selected as being beneficial for personal competencies. Textiles, Home Economics Teaching Methods, and Demonstration Techniques were the exceptions. Only two courses, Tailoring and Dress

Design, listed as beneficial to personal competencies were not included in the top third of the professional competencies. Tables 3 and 4 follow and identify in rank order by percentages of responses those 12 courses selected for professional and personal competencies respectively.

Table 3

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by all Graduates

COURSES	Response Percentages	COURSES	Response Percentages
1. Meal Management	66.6	7. Applied Foods	57.4
2. Intern.-St. Teach.	65.1	8. Clothing Construction	55
3. Field Study-Work	60.6	9. Self-Development	51.9
4. Nutrition	58.9	10. Child Development	50.5
5. Home Ec Teaching Methods	58.8	11. Marriage - Family Relationships	48.6
6. Demo. Techniques	58.1	12. Household Equipment	48.1

From the 12 top courses, 65.1% selected Internship or Student Teaching as beneficial to needed professional competencies. Field Study and/or Work Experience was also chosen by 60.6% as beneficial. The need for practical application, as indicated by the respondents, correlates with the belief of Dressel (1968) who views community service and work-study experiences as relevant vocational experiences. Application of knowledge in a practical situation is also in agreement with the recommendations by Shane (1971) that students should have active participation in the real world.

Table 4

Relevance of Home Economics Courses
Beneficial to Personal Competencies
Perceived by All Graduates

COURSES	Response Percentages	COURSES	Response Percentages
1. Meal Management	72.3	7. Child Development	63.2
2. Clothing Const.	70.4	8. Dress Design	58.8
3. Nutrition	68.8	9. Tailoring	58.5
4. Applied Foods	65.9	10. Intern.-St. Teach.	58.2
5. Household Equipment	64.5	11. Self-Development	57.8
6. Marriage-Fam. Rel.	63.9	12. PreSchool Education	56.0

The respondents identified Self-Development and Marriage or Family Relationships courses at the beneficial level for both professional and personal competencies. This ranking supports the ideas of Metcalf and Hunt (1971) that in terms of relevancy, a quest should be undertaken by students into personal development and self-analysis. Courses related to family orientation would be expected to receive high rating since the major emphasis of home economics is to serve families.

In the Related Area, Communications: Speech was indicated by 54% of the respondents as the most beneficial course. Of those courses listed in the top third of the related area all, with the exclusion of Advertising, were listed under the top five of the courses most beneficial to the personal competencies. Biological Science was included in the

upper third of the beneficial courses for the personal competencies. Refer to Tables 5 and 6.

Table 5

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by All Graduates

COURSES	Response Percentages
1. Communications: Speech	54.0
2. Public Relations	53.4
3. Advertising	52.0
4. Psychology	51.5
5. Sociology	44.6

Table 6

Relevance of Related Area Courses
Beneficial to Personal Competencies
Perceived by All Graduates

COURSES	Response Percentages
1. Psychology	55.7
2. Communications: Speech	53.7
3. Sociology	46.9
4. Public Relations	45.0
5. Biological Science	44.2

The answers from the respondents to the related area courses support the findings by Lyle (1957), Nichols (1961), and Wham (1965) for Arizona graduates also agree that communication and psychology courses are beneficial for professional and personal competencies. The respondents, unlike the recommendations from the Wham (1965) survey, did not include art and journalism in high priority. The results from this study concerning related area courses concur with the recommendation of Johnson and Swope (1972) that interdisciplinary courses are a desirable adjunct to home economics programs. Complete rank order listings of the total related area courses are presented in Appendix C, Tables 30 and 31.

RELEVANCE OF COURSES FOR PROFESSIONAL COMPETENCIES BY SPECIFIC MAJORS

The rank order distribution of beneficial courses perceived by the nine separate majors may provide insight into the courses which contribute to professional competencies. The discussion following is concerned with the courses which graduates identified in the upper third of the home economics area and the upper third of the related areas.

The Home Economics Education majors, who comprised 45.1% of the total sample, appeared to select courses which had theory applied as indicated in Table 7 following.

Communications: Speech was identified as top priority for courses in the related area by 48.6% of the Home Economics Education respondents. Refer to Table 8.

Table 7

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Education Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Meal Management	72.7	7. Field Study - Work	59.7
2. Intern - St. Teach	65.0	8. Nutrition	58.6
3. H. Ec Teach Methods	64.4	9. Child Development	55.2
4. Applied Foods	61.7	10. Mgmt. in Family	53.2
5. Demo Techniques	61.5	11. Household Equip.	51.0
6. Clothing Const.	60.4	12. Self-Development	50.6

Table 8

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Education Majors

COURSES	Response Percentages
1. Communications: Speech	48.6
2. Psychology	46.8
3. Sociology	40.4
4. Public Relations	39.5
5. Biological Science	38.9

The Textiles and Clothing majors were quite diverse in terms of their choices of courses most relevant to their professional competencies. Their ranking of courses for the upper third of the home economics courses were as indicated in Table 9:

Table 9

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Textiles and Clothing Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Textiles	77.7	7. Socio-Psych of Clothing	55.0
2. Demo Techniques	62.5	8. Clothing Selection	52.1
3. Consumer Economics	61.5	9. Intern - St. Teach	44.4
4. Field Study - Work	58.8	10. Interior Design	42.8
5. Dress Design	58.8	11. Home Furnishings	42.8
6. Clothing Const.	58.3	12. Tailoring	42.8

The majors in Textiles and Clothing placed a high ranking on Marketing - Sales and Administration as noted in Table 10.

General Home Economics majors did not include three of the courses listed by all the majors as being the most beneficial courses for their profession. Field Study and/or Work Experience, Nutrition and Demonstration Techniques were deleted by the General majors from the upper third of the most relevant courses. Clothing Selection, Tailoring and Home Furnishings were chosen as beneficial by these

Table 10

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Textiles and Clothing Majors

COURSES	Response Percentages
1. Public Relations	81.8
2. Marketing - Sales	80.0
3. Advertising	72.7
4. Administration	66.7
5. Communications: Speech	65.2

majors, as indicated by Table 11. This area tends to be less specialized than other home economics majors represented in this study. The broad base of courses may be indicative of preparation for diversity in the field and a high interest in the family role.

General majors placed a high emphasis on Marketing - Sales in the related area as reported in Table 12.

Child Development and Family Relationships majors identified Preschool Education, General Teaching Methods, Curriculum and Housing as beneficial for professional competencies. The top third ranking for the selected courses are listed in Table 13.

Psychology and Sociology received top listing by Child Development and Family Relationship majors as is noted in Table 14.

Table 11

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by General Home Economics Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Marriage - Fam. Rel.	85.7	7. Meal Management	72.7
2. Intern - St. Teach	80.9	8. Tailoring	72.2
3. Applied Foods	78.9	9. Child Development	71.4
4. Self-Development	78.9	10. Household Equipment	66.6
5. Clothing Const.	78.2	11. Home Furnishings	66.6
6. Clothing Selection	73.9	12. PreSchool Education	66.6

Table 12

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by General Home Economics Majors

COURSES	Response Percentages
1. Sociology	59.0
2. Public Relations	58.3
3. Communications: Speech	55.5
4. Marketing - Sales	54.5
5. Psychology	52.3

Table 13

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Child Development - Family Relationships Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. PreSchool Education	78.9	7. H. Ec Teach Methods	58.3
2. Self-Development	75.0	8. Intern - St. Teach	55.5
3. Gen'l. Teach Methods	75.0	9. Demo Techniques	53.8
4. Family Relationships	72.2	10. Curriculum	53.8
5. Child Development	71.4	11. Housing	50.0
6. Field Study - Work	64.2	12. Nutrition	50.0

Table 14

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Child Development - Family Relationships Majors

COURSES	Response Percentages
1. Psychology	66.6
2. Sociology	50.0
3. Biological Science	38.4
4. Public Relations	33.3
5. Physical Science	33.3

Graduates who majored in Foods and Nutrition placed considerable emphasis on food oriented courses as evidenced in Table 15:

Table 15

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Foods and Nutrition Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Nutrition	84.2	7. H. Ec Teach Methods	62.5
2. Intern - St. Teach	76.9	8. Consumer Economics	61.5
3. Meal Management	76.4	9. Applied Foods	61.1
4. Experimental Foods	76.4	10. Demo Techniques	58.3
5. Field Study - Work	69.2	11. Dress Design	57.1
6. Diet Therapy	68.7	12. Quantity Food Product.	53.3

The Foods and Nutrition majors included Marketing - Sales as one of the beneficial top third courses in the related area. Table 16 indicates the beneficial courses with a strong relationship to a business orientation.

According to the Interior Design majors in this study, courses perceived as beneficial to their professional needs are indicated in Table 17.

The related area courses for Interior Design majors were business oriented with Administration ranking the highest or 71.4% of the responses. Table 18 lists the courses by priority.

Table 16

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Foods and Nutrition Majors

COURSES	Response Percentages
1. Public Relations	63.6
2. Administration	60.0
3. Communications: Speech	58.8
4. Marketing - Sales	54.5
5. Sociology	43.7

Table 17

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Interior Design Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Home Furnishings	72.7	7. Household Equipment	55.5
2. Kitchen Design	70.0	8. Demo Techniques	50.0
3. Interior Design	69.2	9. Field Study - Work	37.5
4. Textiles	66.6	10. Meal Management	28.5
5. Lighting	63.5	11. Clothing Selection	25.0
6. Housing	60.0	12. Dress Design	25.0

Table 18

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Interior Design Majors

COURSES	Response Percentages
1. Administration	71.4
2. Psychology	60.0
3. Economics	55.5
4. Public Relations	50.0
5. Communications: Speech	50.0

The courses identified as beneficial professionally by the Foods and Equipment in Business majors are listed in Tables 19 and 20:

Table 19

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Foods and Equipment in Business Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Applied Foods	75.0	7. Experimental Foods	60.0
2. Food Purchasing	66.6	8. Household Equipment	50.0
3. Clothing Const.	66.6	9. Kitchen Design	50.0
4. Dress Design	66.6	10. Field Study - Work	50.0
5. Meal Management	60.0	11. Demo Techniques	50.0
6. Consumer Econ.	60.0	12. Intern - St. Teach	50.0

Table 20

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Foods and Equipment in Business Majors

COURSES	Response Percentages
1. Communications: Speech	83.3
2. Journalism	75.0
3. Administration	66.6
4. Public Relations	66.6
5. Advertising	66.6

Courses selected as beneficial by respondents in the Management - Consumer Economics majors are listed in Tables 21 and 22:

Table 21

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Management - Consumer Economics Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Consumer Economics	100.0	7. Marriage - Fam. Rel.	80.0
2. Family Finance	100.0	8. Mgmt. in Family	75.0
3. Field Study - Work	100.0	9. Intern - St. Teach	66.6
4. Food Purchasing	100.0	10. Self-Development	66.6
5. Household Equip.	80.0	11. Curriculum	50.0
6. Meal Management	80.0	12. H. Ec Teach Methods	50.0

Table 22

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Management - Consumer Economics Majors

COURSES	Response Percentages
1. Public Relations	100.0
2. Journalism	100.0
3. Advertising	100.0
4. Communications: Speech	80.0
5. Physical Science	80.0

Many of the beneficial courses identified by the Dietetic majors as relevant to their profession were foods oriented. Refer to Tables 23 and 24.

Table 23

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by Dietetic Majors

COURSES	Response Percentages	COURSES	Response Percentages
1. Applied Foods	100.0	7. Meal Management	75.0
2. Nutrition	100.0	8. Quantity Food Prod.	75.0
3. Diet Therapy	100.0	9. Field Study - Work	75.0
4. Food Service	100.0	10. Kitchen Design	66.6
5. Intern - St. Teach	100.0	11. Home Furnishings	66.6
6. Curriculum	100.0	12. Household Equipment	60.0

Table 24

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by Dietetic Majors

COURSES	Response Percentages
1. Biological Science	100.0
2. Psychology	60.0
3. Communications: Speech	50.0
4. Physical Science	40.0
5. Administration	33.3

VALIDATION OF THE HYPOTHESES

The first null hypothesis was rejected for over 50% of the college courses were rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed in their professional lives. The chi square test was applied to the frequencies obtained from the home economics graduates of the three universities for each of the 50 courses. Forty-one out of the 50 courses were considered beneficial or adequate by home economics graduates for the competencies needed professionally. The chi square values obtained were significant at the .05 level or beyond with one degree of freedom, the criterion accepted for this study.

Seven courses, Gourmet Foods, Food Service, Lighting, Historic Costume, Statistics, Journalism, and Communications: Radio-TV, received

more "beneficial" and "adequate" responses than "not beneficial" ones, but these differences may have occurred by chance for significant chi square values were not obtained when the responses were analyzed. Quantity Food Production and Photography received more "not beneficial" answers than "beneficial" or favorable ones. Also a chi square test of significance was applied to the 41 courses which reached a significant level of .05 as compared to the nine courses which did not reach this level of confidence. A chi square value of 30.48 for one degree of freedom was obtained which was significant at greater than the .001 level. The first null hypothesis, "not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed professionally," was therefore rejected. (Refer to Table 32, Appendix C, for chi square values for each course.)

The same chi square testing procedure of significance was performed on the second null hypothesis that the proportion of the courses rated as "beneficial" or "adequate" by the graduates for the competencies needed in their personal lives was not more than 50%. The calculated chi square value was greater than 3.841 for one degree of freedom for 45 out of 50 courses, and therefore significant at the .05 confidence level. A majority of the home economics and related courses were beneficial or adequate personally to the respondents.

The three courses, Historic Costume, Journalism and Communications: Radio-TV received more "beneficial" and "adequate" responses than "not beneficial," but these differences may have occurred by chance for significant chi square values were not obtained when the

responses were analyzed. Statistics and Photography received more "not beneficial" answers than "beneficial" or "adequate" ones. A chi square test of significance was applied to the 45 courses which reached a significant level of .05 as compared to the five courses which did not reach this level of confidence. A chi square value of 32.00 for one degree of freedom was obtained which was significant at greater than the .001 level. The second null hypothesis, "not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed personally," was therefore rejected. (Chi square values for all courses listed in Table 33, Appendix C.)

The third null hypothesis was that there are no significant differences among courses selected as "beneficial" or "adequate" by various majors in respect to preparation for competencies needed by the graduates in their professional employment. Chi square was applied for each respective major for each of the courses listed on the questionnaire. The null hypothesis of "no difference" among majors was accepted for 16 courses and rejected for 34 courses at the .05% level of significance with eight degrees of freedom. The 16 courses which were not significant at .05 confidence level were: Diet Therapy, Gourmet Foods, Experimental Foods, Food Purchasing, Quantity Food Production, Food Service, Lighting, Educational Psychology, Historic Costume, Tailoring, Statistics, Journalism, Advertising, Communications: Radio-TV, Photography and Administration.

Also, a chi square test of significance was applied to the 34 home economics and related courses which reached a significant level of

.05 as compared to the 16 courses which did not reach this confidence level. A chi square value of 6.48 for one degree of freedom was obtained which was significant at greater than .02 level. The chi square values for courses rated by the nine majors in this study are noted in Table 34, Appendix C. Graduates from the different majors perceived unique courses as beneficial or adequate professionally, but the respondents did not consider all home economics or related courses as contributing to professional employment.

ANALYSIS OF OPEN-ENDED QUESTIONS

Each respondent was queried, by means of an open-ended question, to identify a maximum of three courses which she perceived as contributed most to her first employment situation. She was also requested to identify three courses which contributed most to her present position. The same question was asked as applied to the respondent's personal role.

Those who responded to the question on courses which contributed most in regard to their present employment indicated Nutrition and Home Economics Teaching Methods. The findings revealed a wide distribution of specific courses with frequencies too small to indicate any distinct differences.

According to the home economists who responded to the question on the courses which contributed most to their personal role, highest in priority were: Meal Management, Nutrition, Clothing Construction, Management in the Family, and Child Development. It was noted that Nutrition was identified as the course which contributed most to the graduates' professional and personal roles.

A tabulation of the three selected courses as contributing most professionally and personally was obtained and a logical analysis was made to ascertain if there were differences between: range of age groups, married and unmarried persons; individuals with or without children; and majors with differing specializations. The variety of courses chosen for contributing most to the professional and personal roles were so diverse that a distinct pattern did not emerge. The numbers in each cell were for the most part so small that statistical analysis seemed unwarranted.

The graduates were also given the opportunity to answer open-ended questions for the three least beneficial courses to their first and present employment and the three courses least beneficial to their personal roles. Of the total population who responded to the question on courses least beneficial to the present employment position, Clothing Selection and Child Development were reported. There were no distinct differences between majors in the first and present employment positions in regard to courses selected as least beneficial. Clothing Selection was indicated as least beneficial to both professional and personal roles.

When respondents were asked to indicate one or more factors which contributed to courses being least beneficial to their professional and/or personal roles, the reasons noted are listed in Table 25. (Table 35, Appendix C, identifies factors by universities.)

The graduates were afforded the opportunity to suggest additional home economics or related courses they felt would have contributed to their professional competencies. Many of the respondents

Table 25

Factors for Least Beneficial Courses

Factors	Total Number of Responses
Facilities inadequate	25
Lack of depth in subject matter	125
Inadequate class preparation by faculty	76
Insufficient competency by faculty	95
Methods of presentation	167
Repetition of high school courses	48
Duplication of other college courses	41
Irrelevant to major	120

mentioned need for periods of greater length in student teaching, and they wanted more opportunity for independent study. This coincides with the Eshbaugh (1965), Blodgett (1965), Beasley (1968), Burnett (1968), and Gebo (1971) surveys in which the graduates requested extended length of time for observations and student teaching.

The respondents also indicated a desire for more practical, realistic courses for college programs which would prepare them for everyday life experiences. The need for practical application of the college preparation was also expressed by graduates in the Heinz (1963), Norton (1964) and Gebo (1971) studies.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

This study was designed to ascertain the relevancy of the university courses for meeting the con emporary needs of the home economists. Further, the study endeavored to recognize how graduates evaluate their university preparation for the competencies needed in their present professional and personal roles.

The population for this investigation was limited to the home economics graduates within a five year period, 1968 through 1972, from the three state-supported universities of higher education in Arizona. A stratified proportionate random sampling of the three universities yielding the predetermined sample size of 297 was used to collect the data. The sampling methods, together with the size of the sample, was assumed to yield statistics which would be sufficiently indicative of the population for this investigation.

The sampling instrument was a self-administered mail questionnaire sent to the home economics graduates in the sample who resided in the continental United States. The questionnaire was designed to gather data to test the following three null hypotheses:

1. Not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed professionally.

2. Not more than 50% of the courses will be rated as "beneficial" or "adequate" by the graduates for the development of the competencies needed personally.

3. There are no significant differences among graduates of various professional majors with respect to rating of courses as "beneficial" or "adequate" for the development of competencies needed in their professional employment.

Descriptive data was also solicited from the respondents on marital status, number of children, employment held, age, and educational background. Information was gathered pertaining to the courses which the graduates perceived as being most contributive and least beneficial to their professional and personal roles.

The findings revealed that 30% of the graduates had attended a community college. Only 77 respondents had earned advanced degrees, and of those degrees, 89.6% were earned at Arizona universities. The largest proportion of the population, 45.1%, had majored in Home Economics Education, followed by Textiles and Clothing, 15.4%, and General Home Economics, 10.7%. The study was representative of a youthful population with over 80% of the respondents in the 20 to 30 age range. Over 60% of the graduates were married and engaged in full-time or part-time employment. Only 39.4% of the sample had children.

The majority, 55.8% of the respondents were presently employed full-time in the teaching field, and only 11.6% were engaged in full-time employment outside the home economics profession. Family responsibility was stated by 41% as the major reason for not working. A job shortage in the area was cited by 26.3% as being the prime

factor for unemployment. Other reasons given for not working were a return to school for advanced work, personal choice, and lack of geographical mobility. Only a few respondents reported insufficient job qualifications as a reason for unemployment.

A rank order of the top third of the home economics courses selected by the graduates as "beneficial" or "adequate" to professional competencies listed in priority were: Meal Management, Internship or Student Teaching, Field Study and/or Work Experience, Nutrition, Home Economics Teaching Methods, Demonstration Techniques, Applied Foods, Clothing Construction, Self-Development, Child Development, Marriage or Family Relationships, and Household Equipment.

The top third of the related area courses perceived by the graduates as "beneficial" or "adequate" to the development of professional competencies when listed in rank order were: Communications: Speech, Public Relations, Advertising, Psychology, and Sociology.

The home economics courses indicated by the respondents as "beneficial" or "adequate" to the development of competencies needed personally, were, in rank order: Meal Management, Clothing Construction, Nutrition, Applied Foods, Household Equipment, Marriage or Family Relationships, Child Development, Dress Design, Tailoring, Internship or Student Teaching, Self-Development and Preschool Education.

The upper third related area courses which the respondents indicated as "beneficial" or "adequate" to personal competencies were, in rank order: Psychology, Communications: Speech, Sociology, Public Relations, and Biological Sciences.

The rank order distribution of the top third of the home economics courses perceived by the nine professional majors as "beneficial" to the development of professional competencies was quite diverse with the exception of the following courses listed by over one-half of the majors as "beneficial": Internship or Student Teaching, Field Study and/or Work Experience, Meal Management, Household Equipment, Demonstration Techniques, and Applied Foods.

The testing of the first null hypothesis indicated 41 out of 50 courses were rated as "beneficial" or "adequate" by the graduates for the competencies needed professionally. The chi square values were significant at the P .05 level. The first null hypothesis was therefore rejected.

The second null hypothesis was rejected for the data revealed that 45 out of 50 courses were rated by the graduates as being "beneficial" or "adequate" for competencies needed personally. The chi square values were significant at the P .05 confidence level.

The third null hypothesis was also rejected for 34 courses revealed a significant chi square value at the P .05 confidence level, indicating the nine professional majors rated these courses differently as "beneficial" or "adequate" for the development of competencies needed in professional employment. Sixteen courses indicated no significant difference between the nine professional majors.

The respondents indicated Nutrition and Home Economics Teaching Methods courses as most contributive to their present employment, and Clothing Selection and Child Development as the least beneficial. According to the graduates who responded on courses which contributed

most to their personal lives, the following courses were identified: Meal Management, Nutrition, Clothing Construction, Management in the Family, and Child Development. Clothing Selection was indicated as least beneficial to their personal lives. The factors related to courses being least beneficial to the respondents were predominately: Methods of presentation, Lack of depth in the subject matter, and Irrelevant to the major, listed in that order.

Many of the respondents indicated a desire for more realistic courses which are applicable to their lives. They also mentioned a need for increased opportunity for independent study, and for extended periods of student teaching.

CONCLUSIONS

1. On the basis of the data collected, home economics graduates of the three institutions appeared to find most of their courses relevant to the development of professional and personal competencies. Since graduates, however, indicated that not all courses were beneficial or that some courses were not relevant to the respective professional major, evaluation of home economics curriculums is an ongoing process. Awareness of the differing needs of the various specialized majors is a factor to consider in designing home economics programs. Nelson (1964), Jefferson (1967), Hurt and Alexander (1969), Wiseman and Pidgeon (1970), and Johnson and Swope (1972) also report on the importance of regular planned evaluation of home economics programs.

2. Home economics programs must be planned to fulfill a twofold function of preparing graduates for their professional and personal

roles since a majority of the graduates are married and also engaged in full-time employment. This finding may imply a need for including some common concepts in curriculums offered all specialized home economics majors. O'Toole (1961), Stevens and Osborn (1965), Simpson (1968), Kievet (1968), and Hughes (1969), also report that professional home economists assume the dual role of wage earner and homemaker and expect to utilize their home economics knowledge professionally and personally.

3. The data presented in this study identifies the gravity of offering in-depth experiences in the laboratory within the university or community environments which applies the theoretical subject matter of home economics. Individualized programs, inclusion of independent study and differing methods of presentation by the faculty are essential components of home economics curriculums or programs. Lippeatt and Brown (1965), Dressel (1968), Alexander (1968), and Goldman (1971) also agree that the above are essential in planning viable home economics programs.

RECOMMENDATIONS

1. Because a study based upon the answers from a mailed questionnaire may not allow for a number of individualized answers, in-depth interviews with a limited sample of graduates could add a further dimension to the evaluation of the home economics curriculums offered by Arizona universities. Graduates would be able to relate specific competencies needed professionally and personally and could identify the courses which could be modified or implemented to make the home economics programs relevant to their contemporary needs.

The probe may also prove the need for additional interdepartmental, interdisciplinary and interinstitutional program modifications.

2. The faculty and administrators involved in designing home economics curriculums could benefit from a state-wide evaluation of the various programs. The development of measurable objectives for each course would make it possible to evaluate each offering more precisely in terms of relevance to professional competencies. Both students and employers, especially school administrators, are important components to consider in offering suggestions for program revisions. Some studies by Wham (1965) and Clemens (1971) have involved a limited sample of employers of home economics in business majors but other employers such as school administrators have received little consideration as a source of evaluation of the curriculum. Faculty from the three institutions may need to plan together so that commonality is achieved in implementing identified revisions.

3. A comprehensive study of the personality characteristics and professional and personal expectations of home economics majors may be worthwhile to pursue so that curriculums may be designed to match these characteristics and anticipations. Expectations of employers and the home economics students themselves may be compared to ascertain if the employment requirements are compatible with the expectations of the students themselves. If not, do home economics students pursue the field because they are personally interested in the competencies developed from the specialized majors?

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ARIZONA STATE
UNIVERSITY
TEMPE, ARIZONA 85281
DEPARTMENT OF HOME ECONOMICS

September 19, 1972

Dear Home Economist:

Innovations in university curriculum are eminent but if improvements are to meet the contemporary needs of the home economists, then your assistance is needed.

Won't you please respond and indicate the relevance of the curriculum for your profession?

Instructions for the completion of the instrument are printed at the top of the first page. Please return the completed form in the enclosed envelope before October 1, 1972.

I appreciate your participation and cooperation in this curriculum research project.

Sincerely yours,

F. Kathleen Bates

Home Economics Curriculum Project

INSTRUCTIONS: Please complete this instrument by marking X in the appropriate boxes or briefly writing out your answers in the spaces provided. All information will be kept confidential with the responses tabulated for statistical purposes only.

1. Did you attend a junior college as part of your education? Yes ◯ No ◯

2. Institution of undergraduate degree_____Year 19___

3. Name of Institution if a graduate degree obtained_____Year 19___

4. What was your Home Economics Major?

   Undergraduate_____Graduate_____

5. Age Range: 20-24 ◯ 25-30 ◯ 31-40 ◯ 41-45 ◯ 46 and over ◯

6. Marital Status: Single ◯ Divorced ◯ Married ◯ Widowed ◯

7. Children: Yes ◯ No ◯

8. If you have been or are presently employed, fill out the table below:

	1st Position after graduation		Present Position	
	Full time	Part time	Full time	Part time
Business (please specify type) _____	◯	◯	◯	◯
Dietetics	◯	◯	◯	◯
Teacher	◯	◯	◯	◯
Cooperative Extension	◯	◯	◯	◯
Nutritionist	◯	◯	◯	◯
Social Welfare	◯	◯	◯	◯
Other (please specify) _____	◯	◯	◯	◯

9. If presently unemployed, mark the major reason:

   Family responsibilities ◯
   Job shortage in area ◯
   School attendance ◯
   Personal choice ◯
   Lack of geographical mobility ◯
   Insufficient job qualifications ◯
   Other (please specify) ◯
   _____

10. What 3 home economics courses contributed most to your professional and/or personal competencies?

Professional		Personal
1st Position	Present Position	
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. What 3 home economics courses have been least beneficial to your professional and/or personal life?

Professional		Personal
1st Position	Present Position	
_____	_____	_____
_____	_____	_____
_____	_____	_____

12. Mark the factor(s) which contributed to making these courses less beneficial:

Facilities inadequate	○	Repetition of high school courses	○
Lack of depth in subject matter	○	Duplication of other college courses	○
Inadequate class preparation by faculty	○	Irrelevant to major	○
Insufficient competency by faculty	○	Other (please specify)	○
Methods of presentation	○	_____	

13. Please mark below the relevancy of courses to competencies needed in your present professional and personal life (all may not apply):

	Professional			Personal		
	Beneficial	Adequate	Deficient	Beneficial	Adequate	Deficient
Food and Nutrition:						
Nutrition	○	○	○	○	○	○
Diet Therapy	○	○	○	○	○	○
Gourmet Foods	○	○	○	○	○	○
Experimental Foods	○	○	○	○	○	○
Meal Management	○	○	○	○	○	○
Applied Principles: Preparation	○	○	○	○	○	○
Institutional Management:						
Food Purchasing	○	○	○	○	○	○
Quantity Food Production	○	○	○	○	○	○
Food Service	○	○	○	○	○	○

	Professional			Personal		
	Beneficial	Adequate	Deficient	Beneficial	Adequate	Deficient
Human Development:						
Development of children	○	○	○	○	○	○
Pre-school education	○	○	○	○	○	○
Marriage or Family Relationships	○	○	○	○	○	○
Self-Development	○	○	○	○	○	○
Housing Environment:						
Household Equipment	○	○	○	○	○	○
Interior Design	○	○	○	○	○	○
Housing	○	○	○	○	○	○
Kitchen Design	○	○	○	○	○	○
Home Furnishings	○	○	○	○	○	○
Lighting	○	○	○	○	○	○
Education:						
Demonstration Techniques	○	○	○	○	○	○
Educational Psychology	○	○	○	○	○	○
Home Economics Teaching Methods	○	○	○	○	○	○
General Teaching Methods	○	○	○	○	○	○
Curriculum	○	○	○	○	○	○
Home Management and Family Economics:						
Management in the Family	○	○	○	○	○	○
Consumer Economics	○	○	○	○	○	○
Family Finance	○	○	○	○	○	○
Textiles and Clothing:						
Clothing Selection	○	○	○	○	○	○
Construction	○	○	○	○	○	○
Historic Costume	○	○	○	○	○	○
Textiles	○	○	○	○	○	○
Socio-Psychological Aspects	○	○	○	○	○	○
Dress Design	○	○	○	○	○	○
Tailoring	○	○	○	○	○	○

	Professional			Personal		
	Beneficial	Adequate	Deficient	Beneficial	Adequate	Deficient
Pre-Professional Experiences:						
Field study and/or work experience	O	O	O	O	O	O
Internship or student teaching	O	O	O	O	O	O
Related Areas:						
Statistics	O	O	O	O	O	O
Journalism	O	O	O	O	O	O
Advertising	O	O	O	O	O	O
Physical Sciences	O	O	O	O	O	O
Biological Sciences	O	O	O	O	O	O
Sociology	O	O	O	O	O	O
Psychology	O	O	O	O	O	O
Communications: Speech	O	O	O	O	O	O
Radio Television	O	O	O	O	O	O
Photography	O	O	O	O	O	O
Public Relations	O	O	O	O	O	O
Administration	O	O	O	O	O	O
Economics	O	O	O	O	O	O
Marketing-Sales	O	O	O	O	O	O

14. What additional home economics or related courses do you feel would have contributed to your professional competencies?

_____

_____

_____

THANK YOU FOR YOUR COOPERATION.

Table 26

Undergraduate and Graduate Degrees
By Universities

University	Undergraduate N = 297 No.	%	Graduate N = 77 No.	%	Total Degrees	
A	116	39.	44	57.1		
B	119	40.	16	20.7		
C	35	11.7	9	11.6		
Total Ariz. Univ.	270	90.9	69	89.6	339	90.6
Eastern Area	3	1.	3	3.8		
Midwestern Area	13	4.3	3	3.8		
Western	11	3.7	2	2.5		
	27	9.0	8	10.3	35	9.3
Total Degrees	297		77		374	

Table 27

Age Range

Years	Number N = 297	Percent 100
20 - 24	111	37.3
25 - 30	127	42.7
31 - 40	38	12.7
41 - 45	11	3.7
46 and over	10	3.3

Table 28

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by All Graduates

Courses by Rank Order	Number of Responses	Beneficial Responses	%
Meal Management	177	118	66.6
Intern Student Teach	175	114	65.1
Field Study Work	150	91	60.6
Nutrition	207	122	58.9
Home Ec Teach Methods	163	96	58.8
Demonstration Techniques	148	86	58.1
Applied Principles	162	93	57.4
Construction	178	98	55.0
Self-Development	156	81	51.9
Development of Child	186	94	50.5
Marriage - Fam. Rel.	179	87	48.6
Household Equipment	160	77	48.1
Textiles	172	82	47.6
PreSchool Education	161	76	47.2
Consumer Economics	165	76	46.0
Management in Family	172	79	45.9
Dress Design	130	59	45.3
General Teaching Methods	136	61	44.8
Tailoring	115	49	42.6
Experimental Foods	126	52	41.2

Table 28 (Con't.)

Relevance of Home Economics Courses
Beneficial to Professional Competencies
Perceived by All Graduates

Courses by Rank Order	Number of Responses	Beneficial Responses	%
Food Purchasing	96	39	40.6
Clothing Selection	183	74	40.4
Home Furnishings	146	59	40.4
Curriculum	137	55	40.1
Kitchen Design	119	47	39.4
Family Finance	148	57	38.5
Interior Design	152	57	37.5
Socio-Psycho. Aspects	118	44	37.2
Food Service	82	29	35.3
Housing	127	43	33.8
Diet Therapy	101	32	31.6
Ed. Psychology	150	45	30.0
Quantity Food Prod.	85	25	29.4
Lighting	104	27	25.9
Gourmet Foods	97	22	22.6
Historic Costume	108	17	15.7

Table 29

Relevance of Home Economics Courses
Beneficial to Personal Competencies
Perceived by All Graduates

Courses by Rank Order	Number of Responses	Beneficial Responses	%
Meal Management	242	175	72.3
Construction	240	169	70.4
Nutrition	270	186	68.8
Applied Principles	229	151	65.9
Household Equipment	217	140	64.5
Marriage - Fam. Rel.	236	151	63.9
Development of Child	234	148	63.2
Dress Design	163	96	58.8
Tailoring	147	86	58.5
Intern Student Teach	139	81	58.2
Self-Development	190	110	57.8
PreSchool Education	193	110	56.9
Field Study Work	132	74	56.0
Kitchen Design	154	85	55.1
Management in Family	219	118	53.8
Textiles	218	116	53.2
Interior Design	195	99	50.7
Home Furnishings	190	94	49.4
Consumer Economics	203	100	49.2
Family Finance	178	87	48.8

Table 29 (Con't.)

Relevance of Home Economics Courses
Beneficial to Personal Competencies
Perceived by All Graduates

Courses by Rank Order	Number of Responses	Beneficial Responses	%
Food Purchasing	113	54	47.7
Clothing Selection	240	114	47.5
Housing	168	78	46.4
Demonstration Techniques	123	54	43.9
Gourmet Foods	125	53	42.4
Ed. Psychology	115	47	40.8
Home Ec Teach Methods	108	44	40.7
Socio-Psycho. Aspects	128	50	39.0
Experimental Foods	145	56	38.6
Lighting	136	52	38.2
Diet Therapy	111	39	35.1
General Teach Methods	94	32	34.0
Quantity Food Prod.	92	28	30.4
Curriculum	89	27	30.3
Food Service	85	24	28.2
Historic Costume	125	30	24.0

Table 30

Relevance of Related Area Courses
Beneficial to Professional Competencies
Perceived by All Graduates

Courses by Rank Order	Number of Responses	Beneficial Responses	%
Communications: Speech	161	87	54.0
Public Relations	116	62	53.4
Advertising	100	52	52.0
Psychology	200	103	51.5
Sociology	195	87	44.6
Marketing - Sales	110	49	44.5
Biological Sciences	160	64	40.0
Administration	98	37	37.7
Physical Science	153	55	35.9
Communications: Radio TV	68	20	29.4
Economics	156	42	26.9
Journalism	86	21	24.4
Photography	66	13	19.6
Statistics	106	20	18.8

Table 31

Relevance of Related Area Courses
Beneficial to Personal Competencies
Perceived by All Graduates

Courses by Rank Order	Number of Responses	Beneficial Responses	%
Psychology	190	106	55.7
Communications: Speech	147	79	53.7
Sociology	183	86	46.9
Public Relations	91	41	45.0
Biological Science	156	69	44.2
Physical Science	128	47	36.7
Marketing - Sales	87	30	34.4
Economics	136	39	28.6
Advertising	70	20	28.5
Communications: Radio TV	58	16	27.5
Administration	73	18	24.6
Photography	57	12	21.0
Journalism	63	12	19.0
Statistics	83	8	9.6

Table 32

Chi Square Test for Home Economics and Related Area Courses Beneficial and Adequate to Professional Competencies Perceived by All Graduates

Course	Chi Square	Probability
Nutrition	88.043	.001
Diet Therapy	6.180	.02
Gourmet Foods	.092	
Experimental Foods	14.000	.001
Meal Management	99.937	.001
Applied Foods	74.691	.001
Food Purchasing	12.041	.001
Quantity Food Production	.105	
Food Service	1.219	
Child Development	62.709	.001
PreSchool Education	51.434	.001
Marriage - Family Rel.	59.268	.001
Self-Development	69.333	.001
Household Equipment	72.900	.001
Interior Design	46.421	.001
Housing	31.251	.001
Kitchen Design	33.352	.001
Home Furnishings	37.506	.001
Lighting	1.884	
Demo Techniques	52.324	.001

Table 32 (Con't.)

Chi Square Test for Home Economics and Related Area Courses Beneficial and Adequate to Professional Competencies Perceived by All Graduates

Course	Chi Square	Probability
Ed. Psychology	16.666	.001
Home Ec Teach Methods	62.582	.001
General Teach Methods	30.117	.001
Curriculum	22.080	.001
Management in Family	60.488	.001
Consumer Economics	80.151	.001
Family Finance	31.243	.001
Clothing Selection	45.251	.001
Clothing Construction	89.191	.001
Historic Costume	.000	
Textiles	60.488	.001
Socio-Psy Aspects	21.186	.001
Dress Design	20.800	.001
Tailoring	10.652	.010
Field Study - Work	47.040	.001
Intern - St. Teach	60.035	.001
Statistics	.000	
Journalism	.046	
Advertising	16.000	.001
Physical Science	64.058	.001

Table 32 (Con't.)

Chi Square Test for Home Economics and Related Area Courses Beneficial and Adequate to Professional Competencies Perceived by All Graduates

Course	Chi Square	Probability
Biological Science	90.000	.001
Sociology	104.866	.001
Psychology	98.000	.001
Communications: Speech	68.478	.001
Communications: Radio TV	1.470	
Photography	4.909	.050
Public Relations	39.862	.001
Administration	11.795	.001
Economics	23.076	.001
Marketing - Sales	20.945	.001

Table 33

Chi Square Test for Home Economics and Related Area Courses Beneficial and Adequate to Personal Competencies Perceived by All Graduates

Courses	Chi Square	Probability
Nutrition	195.925	.001
Diet Therapy	23.432	.001
Gourmet Foods	16.200	.001
Experimental Foods	45.248	.001
Meal Management	185.719	.001
Applied Foods	149.454	.001
Food Purchasing	39.725	.001
Quantity Food Production	4.347	.050
Food Service	6.222	.020
Child Development	129.384	.001
PreSchool Education	83.569	.001
Marriage - Family Rel.	128.288	.001
Self-Development	94.505	.001
Household Equipment	161.147	.001
Interior Design	93.461	.001
Housing	82.880	.001
Kitchen Design	99.844	.001
Home Furnishings	75.789	.001
Lighting	28.264	.001
Demo Techniques	38.717	.001

Table 33 (Con't.)

Chi Square Test for Home Economics and Related Area Courses Beneficial and Adequate to Personal Competencies Perceived by All Graduates

Courses	Chi Square	Probability
Ed. Psychology	24.426	.001
Home Ec Teach Methods	31.148	.001
General Teach Methods	12.297	.001
Curriculum	7.022	.010
Management in Family	121.319	.001
Consumer Economics	112.320	.001
Family Finance	80.898	.001
Clothing Selection	96.266	.001
Clothing Construction	173.400	.001
Historic Costume	.648	
Textiles	105.981	.001
Socio-Psy Aspects Cloth	28.125	.001
Dress Design	67.638	.001
Tailoring	51.489	.001
Field Study - Work	33.000	.001
Intern - St. Teach	54.453	.001
Statistics	2.710	
Journalism	.396	
Advertising	9.657	.010
Physical Science	75.391	.001

Table 33 (Con't.)

Chi Square Test for Home Economics and Related Area Courses Beneficial and Adequate to Personal Competencies Perceived by All Graduates

Courses	Chi Square	Probability
Biological Science	95.410	.001
Sociology	111.743	.001
Psychology	118.421	.001
Communications: Speech	53.884	.001
Communications: Radio TV	2.482	
Photography	.017	
Public Relations	28.582	.001
Administration	11.520	.001
Economics	16.941	.001
Marketing - Sales	15.735	.001

Table 34

Chi Square Test for Relevancy of Courses to Professional Competencies by Majors

Courses df = 8	1 N = 134 x^2 value	2 N = 32 x^2 value	3 N = 24 x^2 value	4 N = 46 x^2 value	5 N = 25 x^2 value	6 N = 9 x^2 value	7 N = 6 x^2 value	8 N = 7 x^2 value	9 N = 14 x^2 value	Total Majors N = 297 x^2 value
Nutrition	23.55**	4.45	9.50	.03	1.00	1.78	2.50	2.00	.07	44.90***
Diet Therapy	.42	2.72	6.12	1.00	.00	.16	2.50	.16	.90	14.00
Gourmet Foods	.30	2.22	.50	2.25	1.38	.50	.90	.00	.90	8.97
Experimental Foods	3.70	2.38	4.97	.50	.07	.10	.90	.50	1.78	14.91
Meal Management	40.00***	9.09	4.61	.07	.04	.10	2.00	2.50	.07	60.50***
Applied Foods	28.32***	9.50	4.00	.07	.40	.50	1.50	.90	.00	45.20***
Food Purchasing	7.75	.50	.83	1.50	.07	.16	.90	.50	.33	12.55
Quantity Food Prod.	.33	.33	2.70	2.00	.25	.16	2.00	1.00	1.33	10.11
Food Service	.47	.33	2.70	1.50	1.00	.16	1.50	.50	.90	9.07
Child Development	24.08**	6.88	1.28	.04	5.35	.00	.10	2.50	.64	40.8952***
PreSchool Educ.	21.80	7.11	.64	.20	7.60	.00	.50	1.00	1.33	40.20***
Mar. + Fam. Rel.	19.18*	10.50	3.11	.50	4.00	.10	.16	.90	.25	38.71***
Self-Development	16.92*	5.92	3.20	1.13	8.00	.00	.50	1.50	.25	37.42***
Household Equip.	25.79**	5.44	.96	1.00	.80	1.33	1.00	2.50	1.38	40.22***
Interior Design	14.34	7.60	.66	1.28	.20	.16	1.00	.00	1.88	27.15***
Housing	6.12	6.61	.50	.20	1.00	.16	.16	1.50	3.20	19.47*
Kitchen Design	8.33	4.50	1.13	.05	.25	.10	1.50	1.50	3.20	20.57**
Home Furnishings	10.02	5.35	1.38	1.28	.04	.16	1.50	1.00	2.22	22.99**
Lighting	.00	.83	1.00	.05	.07	.16	1.00	.50	.40	4.03

Majors

1. Education
2. General
3. Foods, Nutrition
4. Textiles, Clothing
5. Child Development + Family Relationships
6. Foods + Equipment
7. Dietetics
8. Management, Consumer Economics
9. Interior Design

*p .05
**p .01
***p .001

Table 34 (Con't.)

Chi Square Test for Relevancy of Courses to Professional Competencies by Majors

Courses df = 8	1 N = 134 x^2 value	2 N = 32 x^2 value	3 N = 24 x^2 value	4 N = 46 x^2 value	5 N = 25 x^2 value	6 N = 9 x^2 value	7 N = 6 x^2 value	8 N = 7 x^2 value	9 N = 14 x^2 value	Total Majors N = 297 x^2 value
Demo Techniques	16.02*	5.44	1.50	.25	.96	1.78	.16	.90	.50	27.53**
Ed. Psychology	5.35	1.60	.03	.10	3.57	.00	.10	.16	.00	10.93
H. Ec Teach Methods	26.32***	9.38	.25	.10	.66	.00	.50	.00	1.50	38.93***
Gen'l Teach Methods	7.07	3.60	1.78	.33	4.50	.00	.50	.00	.16	17.95*
Curriculum	8.39	5.44	.10	.10	1.80	1.00	.50	.50	1.50	19.42*
Mgnt. in Family	18.28*	9.58	.96	.04	1.28	1.78	1.50	2.00	.33	35.78***
Con. Economics	16.99*	8.10	3.11	3.11	3.20	3.00	.50	2.00	1.33	41.35***
Family Finance	10.25	2.50	1.13	.20	.66	.50	.16	2.00	.00	17.42*
Clothing Selection	17.52*	7.84	.14	3.67	.66	.50	.16	.16	.00	30.65***
Clothing Const.	35.02***	7.84	.40	6.75	.00	1.50	1.00	.00	.16	52.69***
Historic Costume	.00	.66	.64	.90	2.72	.50	.00	1.00	2.50	8.93
Textiles	16.26*	6.40	.50	8.16	.07	1.50	.00	1.00	2.72	36.62***
Soc. - Psy. Cloth	3.70	8.50	.07	2.50	2.25	1.00	.00	.00	.09	18.11*
Dress Design	8.02	3.12	.64	3.55	3.50	1.50	.00	1.00	.00	21.35**
Tailoring	3.61	5.44	.10	1.28	3.50	1.00	.00	.16	.16	15.27
Field Study - Work	13.44	3.11	6.50	1.44	1.28	.10	.50	2.00	.00	28.38***
Intern - St. Teach	21.78**	3.67	4.65	.05	1.77	.00	1.50	1.50	.50	35.44***
Statistics	2.04	.03	.66	1.00	1.80	.50	.16	.90	.00	11.32
Journalism	1.83	1.00	.25	.14	.00	2.00	.16	1.50	.64	7.53

Majors

1. Education
2. General
3. Foods, Nutrition
4. Textiles, Clothing
5. Child Development - Family Relationships
6. Foods - Equipment
7. Dietetics
8. Management, Consumer Economics
9. Interior Design

*p .05
**p .01
***p .001

Table 34 (Con't.)

Chi Square Test for Relevancy of Courses to Professional Competencies by Majors

Courses df = 8	1 N = 134 x^2 value	2 N = 32 x^2 value	3 N = 24 x^2 value	4 N = 46 x^2 value	5 N = 25 x^2 value	6 N = 9 x^2 value	7 N = 6 x^2 value	8 N = 7 x^2 value	9 N = 14 x^2 value	Total Majors N = 297 x^2 value
Advertising	.05	2.22	.25	7.36	.10	.16	.00	1.50	2.25	13.91
Physical Science	16.45*	7.50	.83	3.60	6.00	.50	2.50	2.50	.07	39.96***
Biological Sci.	21.09**	6.28	6.12	2.66	4.65	2.50	2.50	2.00	.64	48.46**
Sociology	24.59**	7.36	8.00	6.75	2.00	.90	2.00	.90	1.38	53.89***
Psychology	16.68*	3.67	9.50	6.28	4.00	1.33	2.50	2.00	3.20	49.17***
Communications: Speech	13.08	7.11	2.38	7.84	.20	3.00	1.00	.90	2.25	37.77***
Communications: Radio	.06	.50	.25	1.38	.50	.16	.50	1.50	0.00	4.86
Photography	1.80	0.00	.33	.10	1.50	1.00	0.00	6.16	.33	5.26
Public Relations	4.16	2.66	3.68	9.09	1.33	.16	.16	1.50	.25	23.02**
Administration	.01	.50	3.20	4.50	.33	.16	.16	1.50	1.78	12.16
Economics	.55	5.63	1.44	4.45	.04	.10	.16	1.50	4.50	18.69*
Marketing - Sales	.11	3.68	2.22	12.50	.10	3.00	.16	1.50	1.00	24.29**

Majors

1. Education
2. General
3. Foods, Nutrition
4. Textiles, Clothing
5. Child Development - Family Relationships
6. Foods - Equipment
7. Dietetics
8. Management, Consumer Economics
9. Interior Design

*P .05
**P .01
***P .001

Table 35

Factors for Least Beneficial Courses

Factors	University A No. Responses	University B No. Responses	University C No. Responses	Total No. Responses
Facilities	11	11	3	25
Lack of depth in subject matter	48	56	21	125
Inadequate class preparation by faculty	29	28	19	76
Insufficient competency by faculty	40	34	21	95
Methods of presentation	81	62	24	167
Repetition of high school	18	23	7	48
Duplication other college courses	20	12	9	41
Irrelevant to major	45	63	12	120
Total Responses	292	289	116	697